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ACUTE LOBAR PNEUMONIA.

DR. E. FOREST HAYDEN, Tulsa, Okla.

Most all phases of medical thought have been so thoroughly discussed and completely thrashed out at the successive meetings of our medical associations at their annuals and semi-annuals, and also in the periodical press, that the general practitioner, who has neither time nor opportunity to pursue new lines of investigation, finds it a matter of no little difficulty to select a theme which will not already be so familiar to our fellow practitioners to the extent that it at once becomes uninteresting because of its oft time repetition. In view of the above mentioned facts we are, as a rule, encouraged to launch into some unproven territory when looking for subject matter for a paper, or, on the other hand, we are prone to chase some chimerical product of latter day science in the hope of remaining precisely modern and up to date in our attitude to all things which partake of a medical nature. In this instance, however, I am taking the liberty of bringing to your attention the old and time worn subject—acute lobar pneumonia—consequently I feel goaded by the extreme triteness of my subject to the effort of bringing to the surface some additional points of interest aside from the ordinary trend and method of treating the subject, though it should consist of no more than a

sentence or a word. When we pause to consider the term "Pneumonia," a kind of a kinetoscopic picture looms up within our vision, and we are made to observe first, a perfectly healthy human lung, normal in all of its appointments and perfect in all of its anatomical and physiological relationships; one that accepts, in its way, a prescribed quantity of air from space, and one that by means of its many wonderful and minute laboratories, skillfully arranged in the form of air vesicles, separates from the air it is made to contain that life giving principle—Oxygen—and transmits it through its thin and delicately made membranous walls, where it is in turn given over to the liquid stream of life upon whose bosom it is borne on its destination of indeterminate voyage of succor. In this way we may make a hasty review of the structure of the lungs so far as it concerns us in reference to the topic we are about to consider. We think of the bronchi first. We remember that the right bronchus is shorter than its fellow and that it occupies a more horizontal position, and that it branches off opposite the fifth dorsal vertebra; that the left bronchus is the larger of the two and lies in an oblique position which begins the land marks for the field of our investigation; that it passes beneath the arch of the aorta and crosses in front of the oesophagus, thoracic duct and descending aorta. Next we pass to the bronchial sub-division, and notice that as they pass downward and backward they constantly and uniformly diminish in calibre until they have ended in their respective lobes. The bronchi, as they dip further into the substance of the lungs, divide and sub-divide dichotomously throughout the entire organ, ultimately forming bronchioles, after which its walls begin to present irregular dilitations—called alveoli or air cells; first on one side only, but as we proceed further downward we find them on every side, so that the tube loses its cylindrical character altogether. As we advance from the larger tubes onward and to the final bifurcations, we begin to lose sight of every vestige of cartilaginous material, even though they may be found in tubes of only ¼ line in diameter. Beyond this point the tubes are wholly membranous, with only their fibrous coats and longitudinal elastic fibres which are continued into the smallest ramifications of the bronchi. The bronchi are filled throughout with columnal ciliated epithelium, and finally the lobular bronchial tubes lose their muscular coat altogether and the longitudinal elastic fibres break up so as to form an interlacement around the mouths of the air cells, and it is here that the epithelium becomes non ciliated and flattened.

Having made a hasty review of the bronchial tree from its beginning to the points where the bronchioles metamorphose into numerous dilated extremities, which are denominated air vesicles, and having mentioned something as to their formation, especially as to their minute formation, consisting of mucus and basement mem-

branes in which are held the smallest sub-divisions of a beautifully arranged capillary net-work, by means of which air and blood are enabled to carry on a kind of oxygen commercialism, causing the human economy to be supplied with that indispensible gas without which we must of necessity perish, we are brought to the destination where we are to discuss the pathological condition known as Croupous or Lobar Pneumonia. Perhaps I should have come more directly to the point, or to a division of the subject, by beginning my paper with the treatment of Acute Lobar Pneumonia, since we, as a whole, are most interested in that division of the subject. However, I have thought best to take it up as a whole and in a more routine way, consequently, we will first make mention of the acknowledged classification of the four or five stages into which the disease naturally divides itself, or has been divided by those who have gone before us, for in that way we can best keep track of the successive pathological changes as they occur, and more intelligently and beneficially observe the numerous lines of treatment that come in their wake. No doubt that pneumonia was one among the first diseases to be catalogued, having been denominated by someone as the "Captain of Death," and always has stood foremost among death agencies, yet little or nothing was difinitely known about its pathological foundation as a croupous inflammation of the lungs before the beginning of the nineteenth century. Previous to this time, and from the days of Hippocrates, it received various designations and was much confused with pleurisy, and not until the time of Laennec was the disease placed upon a clear anatomic and clinical basis. He differentiated three well defined and easily noted stages of the disease, known as the stages of Engorgement, Hepatization and Purulent Infiltration. For the sake of greater clearness, based upon our more recent knowledge of the disease, we have now divided the stage of Hepatization into that of Red and Gray Hepatization. A metamorphosed blood mass is the harbinger of pneumonic fever and whether or not the subsequent behavior justifies us in proclaiming it as Lobar, Lobular, Larval, Wandering or Desquamative, or any one of the other thirty or more kinds of pneumonia, named according to their invididualities, we are convinced that the filling of the tissues first with extravasated blood corpuscles is the beginning of the first expression of pneumonia; then follows the secretion of a very tough, tenacious and brownish fluid. Next in order the pulmonary cells become filled with a granular substance which was, at first, thought to be due to the transformation of the vesicles of the lung into solid granules in consequence of the thickening of the walls of the vesicles, but which is now more certainly known as an inflammatory deposit in the cavities of the pulmonary cells. Then the seat of the pneumonia process is located within the walls of the air cells, in the mucus membrane of the lungs. The product of the process is deposited in

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the cavities of the pulmonary cells. Then pneumonia is, therefore, a croupous process of the mucus membrane of the lungs, similar to a parenchymatous croup. Croupous pneumonia in man is regarded as a typical croupous inflammation which is entirely analogous to croupous inflammations occurring in all mucus membranes. The epithelium of the air vesicles undergoes fibrinous changes, after which coagulation and infiltration immediately take place. When the lung has become a properly prepared field of inflamed tissue,—and it has invariably proved to be a very fertile one,—and when it is seeded with infection, in a large majority of instances with the Micrococcus Lanceolatus of Fraenkel, or in association with the diplococcus of Weichselbaum, or the bacillus pneumonia of Friedlander, and we have had established a toxemia of varying intensity; when we realize that in the year 1890 alone there died 76,476, it is more than evident that in this disease we have a problem of no little import to reckon with. Another fact of importance is that the greater number of victims of this disease are claimed during the years of paramount usefulness—the time when men are worth infinitely more to their families and to their states—differing from broncho pneumonia which selects its victims from the extremes of age, either the very young or the very old. It attacks them and slays them chiefly between the years of sixteen and sixty. Other items of importance which at once become apparent to us are: It is partial to males, that it is most prevalent in cities, that it is relentless in its onslaught upon those who have been unduly identified with alcohol, that it preys upon the debilitated, upon laborers and the exposed, and furthermore, that one attack predisposes to another, instead of giving immunity as is the case with many other diseases decidedly less fatal in their issue.

From the time that the pneumonia germ becomes implanted in the lung tissue until the disease symptoms begin to manifest themselves, is a question much in doubt. However, when the process has once begun, and we are called to the patient's bedside, we are accustomed to find the following phenomenae: A history of having had a chill, frequently in the night time,—something that invariably denotes alarm,—a sharp elevation in temperature, often reaching as high as 104 or 105 degrees, there is a flushed face, an anxious expression, a clear and glancing eye, hurried and labored respiration, increased heart action and an aching head and general malaise, a high colored urine and loss of appetite and a co-incidental constipation. We find the patient lying on his back or the affected side of which he complains as giving him great pain. Upon coughing, we discover a blood stained and tenacious expectoration. Having noted the above mentioned train of symptoms, we are wont to proclaim it a case of Lobar Pneumonia. Once being confirmed in this opinion, we are ready for the next initiative, and that is, we must inaugurate

a sane and humane line of treatment. A correct diagnosis is comparatively an easy task, but to adopt a rational line of treatment and one that partakes much of success, is yet a much mooted question, and its correctness depends wholly upon the ability of the attending physician to interpret the full meaning of symptoms as they arise, and to institute the quality of treatment required according to their merits. We must accept pneumonia as a self limited disease, which cannot be either abridged nor aborted by any means within the radius of our knowledge. It has a faculty of quitting when it gets good and ready, and according to experience we know that it is likely to come to an abrupt end, anywhere from the third to the ninth day, and it usually selects one of the odd days for this ordeal. We have also learned that too much treatment is likewise too much of a nuisance, and rallies more of harm than good. The general management of a case is then, a matter of great magnitude. Hygiene here plays a part of first importance. A well sun-flushed room with an abundance of fresh air is imperative. Baruch says: "Plenty of oxygen in the way of fresh air, early in the diesase, will do away with the necessity of administering oxygen later." Patient should be provided with ample clothing, and after having adjusted a comfortable fitting cotton fleeced undershirt, which is easily prepared by opening an ordinary undergarment its entire length of the front and quilting its inner side with absorbent cotton throughout, making it the thickness of one-half inch or more. should be put to bed and kept strictly in a recumbent position or posture, and the bed pan should be used as needed. If possible, the patient should be furnished with two rooms for his sick quarters, so that there will be one room for the patient and one for the nurse or attendant. This enables patient to be kept isolated, thus insuring him a much needed mental and physical rest, and secures others against infection. It is best to provide for necessary ventilation through the nurses room and through windows pulled down from the tops, thereby avoiding any direct draft upon the patient. This arrangement gives the additional advantage of warming the fresh air to the desired point of about 65 or 67 degrees before it comes in contact with the patient. The air to be breathed by the patient should be kept humid, which can be carried out by placing an ordinary teakettle on fire in room adjacent to the one occupied by the patient. The steam that may be procured from this sort of an arrangement, it will be found will be sufficient to render breathing more satisfactory. Food should be light, mostly liquid and nourishing in character, either milk or of a predigested nature, for by conserving the patient's strength we have accomplished much toward bringing him to ultimate recovery. Food should be taken while patient is reclining; overfeeding should be strenuously avoided, for a distended stomach will seriously interfere with an over taxed heart. If patient is

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plethoric, with a high blood pressure; if the pain is severe and the fever is high, I believe that it is expedient to bleed him, regardless of the disparaging remarks that have heretofore been offered in contradiction to this process, which, however, we must admit has oftentimes been abused. If we have deemed it unnecessary to resort to venesection at the outset of the disease, and contra-indicated, we may yet, later on, find it the very best thing at our command, in case the right heart becomes over-filled with blood, plus a gradual increase in tension, accompanied by cyanosis, painful shortness of the breath and small and feeble pulse. While our weakness in dealing with pneumonia is made chiefly manifest by our inability to combat successfully its attending toxaemia, we are prone to pin our faith to a limited number of drugs that seem to bring about definite and desired results. This line of drugs referred to all have specific action upon the heart and vaso-motor system. We are not certain which exerts the most hazardous influence upon the heart—the progressive toxaemia upon the nerve centers controlling the heart action, or the effects of the fever per se. However, we are inclined to rely, with faith, chiefly upon the several actions of digitalis, caffeine citrate, strychnine, aromat. spts. of ammonia, alcohol and saline solutions to bring us out of the dilemma of pneumonic complications. In the treatment of no two patients can any routine be relied upon, neither can any drug be selected without a clear knowledge of all of its medicinal possibilities, for while one of its physiological effects may be all that is required, another one of its actions may mean death to the patient. Dr. Hays says: "In this disease the doctor should be a watchman all the time, and only a therapeutist when necessity arises." It is positively unnecessary to begin the treatment of every patient with a stimulant, for many of them at no time during the course of the disease show any indication for their employment whatever. Should the emergency arise, however, we should select the one, with marked care, that will most likely meet our demands. In those cases which do, from the very outset, present indications for stimulation, it is well to begin with conservative doses of good whiskey (not the Oklahoma ostensible drug-store or bootleg brands) for in doing so we may conserve a three-fold benefit, in using quantities of from one ounce to one and a half ounces, for it can be depended upon as a food, being consumed by the human economy and thus supplying fuel to be appropriated by the fever which, in a long measure, protects the tissues which would otherwise be burned up by the excessively high temperature. Alcohol relieves peripheal blood stasis, and is self indicative as to its extent of usefulness in this particular. When it has been pushed to the limit of its beneficial purposes, it will be made manifest by dryness of the skin and mouth. The odor will also appear on the breath. No doubt but that much of the circulatory disturbance caused by pneumonia results because of the paralyzing ef-

fects of the pneumo-coccus upon the vasomotor centers, therefore we should exercise caution in not over-stimulating the heart, which must aggravate the condition. There are possibly three conditions which seem to indicate the use of digitalis, which we may enumerate as follows: First, loss of nerve power. Second, faulty nutrition, and third, mechanical dilitation of the heart muscle. Digitalis stimulates the inhibitory apparatus of the heart, slowing the heart's action, and gives new tone to the pulse. It prolongs the diastole and imparts a normal vigor to the whole cycle of the circulation; at the same time we are not to lose sight of the phenomenae peculiar to the administration of digitalis, viz. that it acts slowly; that it is accumulative in its action, and that it cannot be depended upon in emergencies when an immediate heart stimulation must be had. Under such circumstances, strychnine is decidedly the better drug to use, unless it be sparteine sulphate in doses of one-quarter to one-half grain. A better plan still, is to combine the two drugs, for by doing this we get a combined action of the two drugs. The strychnine acts at once, and on account of its quickness of action, we are able to lash a failing heart from an impending crisis, and by the time the effects of the strychnine have begun to fade away, the sparteine has taken up the thread of stimulation and holds the circulation strong and steady for a period of four or six hours. Nothing gives the coveted equilibrium to the circulating system in just such a crisis as sparteine does.

The number of medicinal attributes possessed by strychnine are sufficient to commend its recognition in many fields of therapeutic endeavor; it acts well in a purgative combination such as we are wont to use at the beginning of an attack of pneumonia. It stimulates the muscular fibres of the intestines and produces a degree of peristalsis such as will insure a thorough emptying of the bowels. It is an admirable respiratory stimulant, and so acts by a direct stimulation of the pneumogastric center in the brain.

Perhaps we cherish our animated variances in regard to the employment of one class of drugs in pneumonia treatment more particular than any other, and that is the one known as antipyretics.

The majority of practitioners emphatically repudiate all claims of benefit arising from their employment, while others laud them very highly. We are all readily cognizant of the fact that the pneumococci germs thrive decidedly better in blood of a low temperature than they do when the temperature is running in the neighborhood of 104 or more degrees. We are, also, aware that on the other hand that Leucocytosis is encouraged by a high temperature. We further know that leucocytes are nature's defending agencies. These two conditions being true we must realize that a moderately high temperature offers much to enhance the number of chances for recovery to the patient, which is exactly the opposite under an existing low temperature.

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When the temperature runs so high as to seriously interfere with the patients nerve control I think it is well to give guarded doses of phenacetine every 3 or 4 hours until the fever is held within a range of 102 degrees and not below 101 degrees. This is probably an advantageous average.

Should toxaemia be in evidence, the administration of normal salt solution is worthy of recommendation; it materially dilutes the poison in the blood and dispenses with the danger of a heart clot.

Sleep is of vast importance at all events and if patient is inclined to lie awake at nights I have found that the administration of 8 or 10 grains of veronal corrects this difficulty.

As to the employment of expectorant mixtures, no doubt, they are often more of a therapeutic outrage than otherwise.

When there is an existing excruciating localized pleuritic pain a small fly blister is calculated to bring marked relief. Strips of adhesive plaster are, also, commendable.

The use of the proverbial poultice is filthy, void of good and should be discouraged.

HEMORRHOIDS.

Leigh Watson, M. D., Oklahoma City.

More people are afflicted with hemorrhoids than with hernia or tuberculosis, probably one person out of every ten has piles. This is not surprising when one considers the large number of predisposing and active causes that favor the development of this disease. I wish to make a plea for the more frequent use of the simple operations for hemorrhoids, I believe it is the thoughts of a severe operation, intense post operative pain and the long detention from business that causes the majority of patients to refuse surgical treatment for this annoying and troublesome affliction. The term "hemorrhoid operation" too often means general anesthesia and a Whitehead operation, or one of the numerous modifications of this very radical and rarely required proceedure. The Whitehead operation is indicated only where there are no distinct pile tumors but a varicose condition of the entire pile bearing area with ulceration of the mucosa and frequent protusion with bleeding. Gant states that piles can be permanently cured by less difficult operations than the Whitehead.

With the improved technic of cocain anesthesia, shown in the accompanying illustrations, which permits a thorough and painless dilatation of the sphincter, it is no longer necessary to subject these patients to the discomfort and danger of general anesthesia. The immediate and permanent relief that this method offers should appeal alike to patient and physician because it can be done in the office or home and there is only one or two days detention from business and after pain is absent.

Cocain one-tenth to one-fifth per cent in normal salt solution is the local anesthetic of choice. The ideal anesthia is the one that

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gives complete analgesia with the smallest amount of infiltration. By a thorough infiltration is not meant a massive infiltration of all the tissues regardless of the nerve supply. Massive infiltration obscures the field of operation, distorts or obliterates the hemorrhoids and is the usual cause of failure when physicians neglect to remove all the pile tumors when using local anesthesia.

Case Report. This is a case of combined external and internal piles. The patient is lying on his left side in the Syms position. The operation of choice in this case is the ligature.

Figure 1.

Figure 2.

Figure 1. This shows only the connective tissue hemorrhoid, Tuttle's skin tab, the internal hemorrhoids are not visible, they are above the sphincteric ring.

Figure 2. While the patient strains a small pledget of cotton saturated with a one-fifth per cent cocain solution is introduced into the anus, as he relaxes the pledget is drawn up within the sphincteric ring. The local applications are repeated with pledgets of increasing size, until the mucosa is completely anesthetized and the sphincter relaxed sufficiently to admit the index finger without pain.

Figure 3. The needle is introduced through the anesthetized mucosa and the muco-cutaneous margin carefully infiltrated with a

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one-tenth per cent cocain solution by means of a series of small wheals. The point of the needle must be very superficial, the tip should always be in sight between the layers of the epidermis. After each injection the needle is reinserted well within the anesthetized area.

FIGURE 4. This shows the skin infiltration completed. This is all that is required for external hemorrhoids, when it is not necessary to dilate the sphincter. Note the small amount of infiltration required if it is placed as Wyeth emphasizes, "intraepidermal."

FIGURE 3

FIGURE 4

FIGURE 5. The index finger of the left hand is introduced into the anus and the sphincter muscle located. With this finger as a guide the muscle is anesthetized. Six to eight punctures are made at equidistant points around the circumference of the anus, each time about fifteen minims of the one-tenth per cent cocain solution is injected directly into the muscle. This step is difficult and painful unless the muscle has been partially relaxed with the cotton pledgets.

FIGURE 6. The sphincter is now painlessly and completely relaxed by digital dilatation. Only a moderate degree of dilatation is necessary. The extreme divulsion practised by some operators is

not only unnecessary but the traumatism causes the dull aching pain that so often follows these operations.

FIGURE 7. This shows the amount of dilatation that is possible under local anesthesia. The sphincter is well dilated so that no pile tumors will be overlooked as often happens when the sphincter is rigid and resisting, even with general anesthesia.

FIGURE 8. The internal hemorrhoids are easily everted after the sphincter is relaxed. There is no chance of overlooking the smallest pile tumor.

FIGURE 5

FIGURE 6

FIGURE 9. The lowest pile is grasped with a hemostat and pulled down while a groove is cut around its lower two-thirds through the skin and mucosa. This prevents post operative pain.

FIGURE 10. The ligature is transfixed through the center of the pile to prevent slipping.

FIGURE 11. The ligature is firmly tied in the muco-cutaneous groove.

FIGURE 12. This shows the ligature operation completed. If it is desired, the quinine urea nerve block can be used to prevent all post operative pain. A one per cent solution is injected into the pile tumor and around the base of the ligature.

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The success of the offiice treatment of hemorrhoids is demonstrated by the flourishing practise of the "advertising specialist." Many patients are unwilling or unable to submit to hospital treatment for piles, nor will they consult the physician who does not treat these cases at his office, except as a last resort, when palliative measures have failed and their health has become seriously impaired.

There are several good methods that are adapted to cocain anesthesia and the choice depends on the individual case and the preference of the physician. Since the introduction of methods whereby

FIGURE 7

FIGURE 8

the sphincter can be painlessly dilated the indications for general anesthesia in rectal work have become very limited and are governed largely by the skill and patience of the physician in the use of cocain, even the Whitehead operation can be performed under local anesthesia.

The office treatment of piles usually consists of the ligature with or without transfixion, clamp and suture or excision of the hemorrhoid with suturing of the wound.

The majority of hemorrhoids seen by the general practioner are primary hemorrhoids and either internal or external in character.

The internal hemorrhoids are usually divided into the capillary and varicose varieties. The varicose pile protrudes when the patient strains and are the source of considerable inconvenience.

The capillary form bleed at frequent intervals and give the patient annoyance from irritation and tenesmus but do not protrude.

Internal hemorrhoids are very frequently treated with palliatives because of the general belief that their cure requires a general anesthetic, confinement in a hospital and detention from business.

The external hemorrhoids ordinarily encountered are of the thrombotic and connective tissue varieties.

FIGURE 9

FIGURE 10

Thrombotic hemorrhoids are due to the clotting of blood in the loose cellular tissue around the terminal veins. The injection of a few drops of one-tenth per cent cocain solution into the skin surrounding the thrombotic hemorrhoid will permit a painless incision, which should be made in the line of the radial fold, the clots should be gently removed with a small curette or forceps. Squeezing them out by pressure will make the after pain more severe and sometimes cause swelling of the parts. Usually a suture is not required as the folds of the anus tend to keep the edges of the wound in approximation and healing is complete within a week. Glutol, a one

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per cent formalin in powdered gelatin, is a very convenient dressing for these cases, it is an efficient hemostatic as well as an antiseptic.

Connective tissue hemorrhoids or "skin tabs" (Tuttle) are usually more annoying than dangerous, although they are liable to become inflamed from prolonged irritation and cause marked discomfort and pain.

Palliative treatment is worthless in these cases, while the injection methods will increase the size of the tumor. The only satisfactory treatment is to cocainize the connective tissue pile and clip it off

FIGURE 11

FIGURE 12

flush with the skin. The healing is equally rapid whether the wound is sutured or left open.

Secondary hemorrhoids due to hypertrophy of the prostate urethral strictures,, cirrhosis of the liver, vesical calculus, malignant disease of the bladder and rectum are best treated with palliative measures unless the cause can be removed. Secondary hemorrhoids and those involving the entire pile bearing area should be operated on at a hospital or in the patient's home, these cases are always liable to secondary hemorrhage.

To secure the best results in the simplest operation it is necessary

to have the lower bowel empty. Neglect of the proper preliminary treatment will make the office treatment of hemorrhoids unsatisfactory. One or two days before operation the patient should receive a large does of castor oil, Laxol, or a saline cathartic. An enema of hydrogen peroxide, ten per cent, eight to ten hours before operation to thoroughly empty the bowel. If the desired result is not obtained the enema should be repeated within two hours. No enemas should be given within six hours of the time set for operation, a disregard of this precaution will sometimes cause annoyance from fecal masses contaminating the field at the time of operation due to an exciting of peristalsis. Particles of fecal matter in the rectum at time of operating must be thoroughly removed with pledgets of cotton or gauze or an irrigation.

Patients operated on with local anesthesia should always receive morphine sulphate (grain one-eighth to one-quarter) hypodermically one hour before operation.

When operated on at a hospital or in the home the hyoscine-morphine preliminary treatment, as suggested by Tuttle, is very useful to prevent much of the post-operative pain that follows the more radical operations. Give hyoscine hydrobromate, one hundredth grain, three hours before operation. Repeat the same dose of hyoscine combined with morphine sulphate, one-sixth to one-quarter grain, one hour before the operation.

The ligature operation is preferred by many because of its simplicity, ease and rapidity of application and adaptability to the majority of cases. It can be performed in the lithotomy or Syms position, the latter is more comfortable for the patient.

After the usual preparation and cocainization the sphincter is dilated and the lowest pile grasped with a hemorrhoid forcep or an ordinary vulsellum. Allingham ligates the smallest and lowest hemorrhoid first so the blood will not obscure the field of operation and there will be no danger of the pile being overlooked. A groove is cut around the lower two-thirds of the pile and the submucous and muscular tissues separated up to its base. The pile is then ligated with chromic catgut, linen or silk and the hemorrhoid cut off, leaving sufficient pedicle to prevent the ligature slipping. When the pile is large and the hold of the ligature uncertain it is wise to transfix the ligature through the base of the hemorrhoid before tying. Any actively spurting vessel should be tied. Venous bleeding while sometimes free, will stop as soon as the operation is completed.

Healing is more rapid and strictures and contraction prevented if the longitudinal incision is sutured transversely. An extensive removal of subcutaneous tissue when operating for hemorrhoids is a frequent cause of contraction, therefore, the base of the ligature should be as narrow as possible and at the same time safely secure the blood supply.

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As much mucous membrane as possible should be left between the ligatures, it promotes healing, the patient is more comfortable, the bowels move easier and contraction and stricture prevented.

The clamp and suture method: The pile is grasped in the long axis of the bowel with a long narrow bladed clamp. One with slight serrations to prevent slipping is to be preferred. Be careful to always close the blades just within the muco-cutaneous margin. The inclusion of skin or muscle within the suture is the most frequent cause of pain following these operations. With scissors the pile is cut off leaving about one-tenth inch of pedicle, just enough to insure the hold of the clamp. A suture of chromic catgut, linen or silk is threaded into a fine round curved needle. The suture is begun and tied just above the upper end of the clamp to secure the hemorrhoidal artery, then continued as a continuous suture around the clamp until the lowest end of the pile is reached when the clamp is removed and the suture tightened and tied.

The Earle operation has the same indications as the Whitehead with the advantage of being quicker and less bloody. It is similar to the method just described except that the suture line is transverse. The pile is grasped with a hemorrhoid forcep or vulsellum and pulled down while the Earle clamp is applied. The pile is cut off and a continuous suture or chromic catgut passed through the pedicle under the clamp. The suturing completed, remove clamp, tighten and tie suture. The proceedure is repeated on the opposite side and the operation is finished.

The clamp and cautery method is cumbersome and not adapted to local anesthesia, besides the heat tends to radiate beyond the anesthetized area and cause pain. Jacobson says the cautery operation is more painful and uncertain than any other method of radical treatment.

In fistulae the cautery is the method of choice, ninety per cent of which are tuberculous, the cautery effectually prevents metastasis. Tuttle states that before he adopted the cautery treatment for all fistulae, he occasionally found a case that developed tuberculosis of the lungs one or two years after the fistula operation. Since using the cautery he has never had this complication. When the cautery is to be employed the tissues must be cocainized at least two inches beyond the site of operation to prevent the discomfort of heat radiation to unanesthetized tissues.

The bowels carefully prepared before operation, should be kept at rest for four or five days when a dose of castor oil, Laxol or a saline cathartic is administered. When the bowels feel inclined to move give an enema of olive oil to make the action painless.

When more than one pile has been removed it is advisable to insert a small rubber tube covered with gauze and well lubricated with

vaseline. The tube is left in one or two days and prevents gas accumulation in the lower bowel. This dressing is easily held in position with a "T" bandage.

The after treatment consists in administering an intestinal antiseptic to prevent gas formation, bathing the parts with warm water to prevent spasmodic contraction of the sphincter and the daily application of carbolized vaseline or vaseline and ichthyol through a pile tube. The use of suppositories is seldom required besides they are inconvenient and difficult to insert after a hemorrhoid operation.

EPIDEMIC CEREBROSPINAL MENINGITIS.

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In presenting to you the subject matter of this paper, we realize that in all probability we shall not be able to offer you anything new, as every particle of information available on this subject has recently been so generously distributed as to hardly escape your notice. However, it might be that a review of the more practical features of the recent epidemic that has involved a large area of our State and the State of Texas might in a measure be beneficial. Since the settlement of our State, there has never been an epidemic within its borders that has caused the general alarm both upon the part of the physician and the laity as has the recent epidemic of cerebrospinal meningitis. And yet the number of attacks and death rate has been compartively low,, considering the area of involvement.

In our brief discussion we shall deal with the subject matter in general way only, trusting that your personal interest leads you to make a careful detail study of this important subject.

Before proceeding we will review a brief history of this disease, as to habits and attacks. For this review we will be guided by W. H. Frost's report of the U. S. Public Health and Marine Hospital service. In substance, it shows that cerebrospinal meningitis is epidemical in its attacks, it also shows that coincident epidemics may occur in widely separate localities at the same time. That periods of intermission will prevail in cycles. With only occasionally a sporadic case occurring as at no time but somewhere there are small attacks, at times hardly noticeable.

By this report it will be seen that the portion of the country now affected, has escaped previous outbreaks of serious consequence, if so no record is made of the same.

"This clearly recognized epidemic of cerebrospinal meningitis occurred in Switzerland in the spring of 1805, following this for a period of ten years, a number of attacks occurred in widely separate localities in France and Germany. Coincident with the above or one year later an outbreak occurred at Mansfield, Mass.,

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spreading over the eastern portion of the United States and extending into Canada, lasting for a period of ten or twelve years.

"After a period of intermission of about fifteen years or the year 1836, there occurred in Europe a series of outbreaks, continuing again for another fifteen years. Closely followed by a similar outbreak in the United States, lasting for the same period as the last mentioned, subsiding about the year of 1850.

"The next period of prevalence was in the year of 1860, when this disease visited the Scandinavian Peninsula, causing the loss of about four thousand lives; this period prevailed only about six to eight years. At the same time there occurred a similar attack in Europe and the United States. This same report shows that during the years from 1865 to 1885, a period of twenty years, that attacks were very rare, except in small portions of America. Excluding the Fiji Islands, which were attacked by an epidemic during 1885, and 1886, there was another intermission of about fifteen years. In the year of 1900 there occurred an attack in Europe and the United States. Continuing close upon the last comes another cycle of epidemics dating from 1904 in the United States, and 1905 in Germany (especially Prussia) and 1908 in France. Apparently this last wave has not yet passed. During the winter and spring of 1911 outbreaks occurred in several of the Southern States of the United States and there are further outbreaks in the South and Southwest at present." The latter refers to the Texas and Oklahoma epidemic.

A careful study of the above will bear out the assertion that in all probability, present epidemic of cerebrospinal meningitis, which has been spreading will continue for a year or two at least, in some locality, is in keeping with the previous habits of cerebrospinal meningitis. And that the seemingly subsiding spreading of this disease is due to the season of non-prevalence, rather than the usual period of intermission. Though the next outbreak may be in a widely separate community from the present. Though the attack may not rage with the accustomed severity, yet at some place or number of places cases will occur. And we, as physicans, sooner or later in our routine work will have to combat this disease in some of its forms, is almost certain.

Cerebrospinal Meningitis, like the more common infectious diseases, is due to a specific germ, the diplococcus intracellularis meningitis or commonly called the meningococcus. The growth of which is confined largely to man and monkey. To a limited extent lower animals have been inoculated with this disease or one that bears many clinical symptoms, which is in the opinion of the writer, the same.

The meningococcus grows best in a media containing animal fluids preferably human, such as pleuritic, blood serum, or defibrin-

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ated blood. The temperature preferred is 73-C or 98.6, the life of this germ is but five minutes at 50-C and it will live scarcely at all at a temperature above 65-C. That outside of the human body it has but a short life.

The area over which meningitis may spread is not limited, it may appear at widely different places at the same time. The course, or route which it may follow cannot be traced with any certainty. It may appear in any climate, and under any or all circumstances. Any direct relation cannot be established between similar attacks in different communities. However, there are instances where it is thought along the route traveled by soldiers, whose camp was infected with cerebrospinal meningitis, that cases might be traced. But to trace the source of this disease as can be the source of typhoid fever, can not be done.

The season of greatest prevalence is during the winter months and early spring.. Netter and Debre statistics show that cerebrospinal meningitis during a period of three years, eighty per cent of the cases occurred during the winter and early spring months. The number of cases occurring in Savannah, Ga., in the winter of 1910, and early spring of 1911, and in Dallas, Texas, in 1911, and 1912 are practically the same as above, eighty percent in each case, the disease subsiding as the warmer weather set in.

The manner in which meningitis may be transmitted, and to what extent it is contagious, are a question of considerable comment. Just to what extent personal contact has to do with the spread of this disease is not yet fully determined, but that it is a factor is practically certain.

The following is taken from the U. S. Marine Hospital Service report of 1911:

Out of forty-nine cases investigated, it was found that four cases could be traced to direct contact; indirect contact, four cases, that is living with people who came into direct contact. Six possible contracted, through public schools. No contact traceable, thirty-five.

It is evident that personal contact, from the above, has something to do with the source of infection, although very slightly, yet it is sufficient evidence, to cause the usual precaution of not coming into contact with a disease that might prove such an unwelcome guest. It is generally conceded to contract this germ one must come in personal contact, such as using the common drinking cup, the use of the same towel, or eating and sleeping together. As we have previously stated, the meningococcus lives but a few minutes outside of the human body, making direct contact the most likely means of transmission.

During a general epidemic, eighty per cent of the people are common carriers of the meningococcus, and yet, according to the pop-

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ulation, comparatively few are attacked. In an ordinary epidemic, where the population is not overly crowded, the usual number of cases are one to two to a thousand population, may run much lower, and instances are also recorded where the per cent attacked was considerably higher. Out of five hundred cases reported, in the state of Oklahoma, April the tenth, extending over a number of counties, would hardly change the estimate of one to two cases to the thousand.

Considering the number of people who are common carriers, it is evident that man possesses an unlimited resisting power to this disease.

It would be unnatural when we consider how widely distributed the meningococcus is during a general epidemic, and the nasopharyngeal tract being the primary seat of infection that a far greater number of children than adults are affected. Further, with the great number of children with abnormal growths of the nasopharyngeal tract, which afford the proper field for invasion of all germs.

According to statistical reports, about seventy-five per cent of all the cases of cerebrospinal meningitis attack children under the age of fifteen, and fifteen per cent of the cases are under the age of two years. While I have been unable to ascertain a definite report, as to the per cent of children attacked in this recent epidemic, it has been approximately estimated that the ratio is in keeping with the above per cent. Why this disease should have a special fondness for children, might be due in part to usual low resisting power which the ordinary child possesses against the many contagious and infectious diseases, together with the opportune field of invasion as previously stated. And again the unhygenic surroundings of the daily living of so many children.

"Cerebrospinal meningitis is, as a rule, more prevalent in the crowded districts of cities, among the poorer class of people, living under unhygienic conditions, but by no means limited to this class of people." A close study of a general epidemic will show that it will to an extent, attack all classes of people, living under all circumstances of life.

A review of the conditions that prevailed in Savannah, Ga., during the epidemic of 1911 in that city, it was found that a greater number of the cases were in the extreme East and West sides of the city, mostly in the negro population and unhygienic districts. "For several months before cerebrospinal meningitis became general there occurred constantly, sporadic cases in these districts. While in the center and more densely populated part of the city very few cases occurred at all."

It is generally supposed that this germ finds its way to the meninges, by the nasopharyngeal route, through the sphenoid opening,

along the lymph or blood vessels to the base of the brain. Having a great partiality for the cerebral and spinal meninges, especially the inner. "The presence of this germ causes a purulent exudate and the pressure of the exudate upon the root of the nerves produces a general paraylisis, which is often found in pronounced cases."

In long protracted cases, besides the pia mater almost every organ of the body may be affected.

The early diagnosis of a case of cerebrospinal meningitis is very essential, when the fatality of this disease is considered, in case proper means of relief are not at once taken.

The clinical symptoms, by which the diagnosis is made, are, as a rule, clearly defined. In most cases an early diagnosis is made.

Some of the more prominent symptoms in children usually are convulsion, vomiting, persistent restlessness and irritability. Fever at the beginning, starting at about 102 and soon reaching 105 or even higher. The pulse in children is very rapid, while in the adult it may be slow. The pupils are generally dilated, though may be contracted of unequal. The Cheyne Stokes type of respiration, is not an uncommon symptom. The skin is highly sensitive, the child will cry when touched. According to Netter, Kernigs Sign will be found in ninety per cent of cases. The diagnosis might be confused with tubercular meningitis. The history of prolonged and lower temperature will usually aid in determining the diagnosis. When in doubt as to diagnosis in a suspected case microscopical examination should be made. Otitis media, articular rheumatism, typhoid fever and pneumonia fever might be confused with meningitis.

The treatment of cerebrospinal meningitis, like that of diphtheria has within the last few years, assumed a definite form, the by-gone local applications and blistering of the skin in the region of the spinal canal are no more resorted to by the physician. Instead, the universal recognized treatment is that of antimeningococcus serum. As to when it should be administered and how has been recently so fully discussed in medical literature, as well as in the recent Monthly Bulletin of the State Board of Health, as to make it appear useless for further discussion at this time. That this paper may be complete we will here briefly outline the general plan.

The technique of administration of this serum, together with dosage and needles for withdrawing the spinal fluid come in packages prepared by the manufacturer of the serum.

The same procedure should be followed relative to asepsis, for a surgical operation. The child is placed upon its side, back bowed. The point of insertion is between the third and fifth lumbar vertebrae or at a point where a line drawn across the back from the iliac crests. Those who have frequently administered this serum advise the ad-

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ministration without a general anesthesia. The distance to insert the needle in a child is from three-fourths to one inch into the spinal canal.

The amount of spinal fluid withdrawn is equivalent to the amount of serum injected, or ten to thirty C. C. As this fluid is withdrawn, it should be preserved and measured as to determine the amount to inject. This fluid characteristically turbed, may be purulent with flakes of fibrin. In chronic cases the fluid may be so thick with fibrin as not to be obtainable.

By the serum treatment the death rate has been wonderfully reduced. Before its use became effective, the mortality rate was anywhere from sixty to eighty-five per cent, leaving its victims usually deaf, blind or paralyzed. By the use of the serum this former mortality has been reduced to twenty-five per cent, and even lower, where given within the first three days. To obtain the best results from the use of the anti-mengococcus serum, as is the case in diphtheria serum, it must be administered early in the disease.

Netter and Debre report thirty-six cases in which the serum was administered prior to the third day with but two deaths or 5.55 per cent. The dose should be repeated at the end of twenty-four hours for the first two or three days, or until the symptoms subside. Antimeningococcus serum has not yet been standardized with an accuracy as has antidiptheria serum, so we are not able to gage the dosage as in the latter, but must be governed by the results. As the results obtained by the use of the serum is now fully assured, it is the opinion of the writer that early in any suspected case, that serum should be administered if the same can be had. In addition to the great reduction in the mortality, very seldom by its use have we any of the unpleasant sequellae of the former method of treatment.

On April the tenth, out of five hundred cases reported to the State Board of Health of the State of Oklahoma, the death rate was but thirty-three per cent, and in many cases serum was not obtainable until very late and in some cases not at all.

By G. Ellison, Norman, Okla.

SPINAL FLUID EXAMINED.

Total number examined	230
Number in which age was designated	70
Ages:—	
Under 1 year	5
1 to 5 years	19
6 to 10 years	16
11 to 15 years	2
16 to 20 years	5
Over 20 years	33

The following is a list of questions and answers received to the same, on 6th inst., to Dr. A. W. Nash, City Health Officer of Dallas, Texas, pertaining to the recent epidemic of cerebrospinal meningitis, in that city:

1. The number of months of prevalence in your city. Ans. Six
2. Months of greatest prevalence? Jan., Feb., and March.
3. Number of cases reported during entire epidemic? 552.
4. Number of deaths? 124 in hospital; 25 moribund when admitted.
5. Number of deaths of cases treated with serum and number treated without serum? All cases had serum.
6. Number of cases occurring under age of fifteen years? Unanswered.
7. Number of cases where more than one case occurred in the same family? Forty.
8. Number of cases traced to direct contact? 98.
9. Do you advise strict quarantine measures? Yes.
10. What per cent of those who came in direct contact contracted this disease? Unable to state from statistics available.

This report will show that about twenty per cent of the cases was due to direct contact. That the mortality excluding the twenty-five cases moribund, when admitted to the hospital, was approximately twenty per cent. This report does not show the advancement of the disease when serum was administered, nor the sequellae of those who recovered.

DISCUSSION.

DR. ROTH.

The observation of these cases has come very close to me although I have not had the slightest care of them, but we have had several around the country and in one instance one of our physicians had eighteen cases, and in the first seven he had access to the serum but in the other eleven he had no serum but had equal results, and in the minds of some of us we have been wondering just how much was due to the benefit of the serum and how much to the relief of the tension. One of the points the doctor made was that of the injection of 30cc of serum. In some cases we took out 3½ ounces of the fluid. Some of the doctors have had some difficulty in getting the medicine into the canal. Most of them have found that they could enter. In one case a man seventy-six years old had driven out home, about one and one-half miles, and experienced a chill. A physician was called. He had some temperature and pulse was normal. He was given some aspirin and the doctor's conclusion was that he was taking cerebro-spinal menin-

gitis.. There were several other doctors called and they diagnosed the case correctly. The man improved. On the fifth day he developed malignant symptoms and died quickly. In his case we found a great many cells with just one pair. The cells being just one pair to themselves all the way through made it impossible to get the clinic. I think there should always be a lumbar puncture. It relieves the tension.

Another point was that in our experience there was never more than one case in the same family. They were all scattered around. It affected every district about equally, the better and the poorer the same. I would also like for some one to say what their experience has been with urotropin.

DR. JENKINS.

I just wanted to ask the doctor who left the floor a few questions along this line, for my experience is not worth anything along this line. I did general practice a long time and I treated two cases of meningitis a long time ago. The general opinion at that time was that a man who did use opium in a case of real meningitis, anything short of mobbing would be too good. The first case I had I did not use opium. It died. The second I used it and the child lived. Most doctors in cerebro-spinal meningitis are asked not to draw off more fluid than the serum injected. I want to ask if there is any symptoms of collapse.

DR. DAVIS.

I think in the reports that came up from Texas in regard to prophylactic conditions of this they gave it that they use peroxide of hydrogen. That seems to me to be the worst thing that could be used. It has no antiseptic power. The doctor in his paper mentioned that infection occurred through the sphenoid. My impression was that it was through the adenoids. I think the practice of using peroxide is a very bad one. Occasionally we would see a person who came from an infected district and who would want their nose sprayed out. One woman used a 10 per cent carbolic acid solution and you can imagine what her nose looked like.

DR. LITTLE.

In regard to hydrogen peroxide, I feel inclined to say the same for urotropin. My experience with hydrogen peroxide is that it is probably a good seller for the drug stores but that is the extent of its usefulness. The manufacturers of hydrogen peroxide and urotropin have started those names and the State Commissioners of Health have written the pamphlets giving those names, and the laity have followed the pamphlets religiously. It is simply to my mind an illustration that at least a large percent of us doctors are catspaws for manufacturers, and I believe that any one of us has mental

equipment to furnish nasal and throat sprays made up of standard drugs without resorting to patent medicines. We, as physicians, should study our pharmacopœia more and patent medicines less, and do our own thinking instead of having it done from the outside.

DR. WILLIAMS. (Closing.).

There are many things left unsaid in my paper relative to this great epidemic that might have been said. I agree with the doctor upon the use of morphine, having gone through an epidemic about seven years ago. We used morphine then, the only drug we knew to relieve the patients. Relative to the doctor referring to the point of withdrawing spinal fluid, I am highly in favor in all cases where we have pressure on the spinal nerve to relieve the pressure. And as to the use of peroxide of hydrogen and the various sprays, I find that in the best references given they do not use them, and I think Doctor Little hit the key note when he said they were recommend ed by the commercial interests and we had fallen into them.

INTESTINAL DISEASES OF CHILDREN.

BY CARL. PUCKETT, M. D., Physician to the Oklahoma State Home for Dependent Children, Pryor, Okla.

In this article I do not intend to cover the whole field of diseases of the intestines, but rather to confine myself to those disorders that most frequently occur in the summer time, which we usually term "Summer Diarrhoeas."

Disorders of this kind mean trouble and worry to all parties concerned in the cure, and frequently taxes the physician's patience and ability to the limit, for if there is any class of diseases that gives no response, at times, to all kinds of care and treatment it is children's diarrhoeas. Most diseases run a definite course, but this is one condition that we are not sure of at any time. This trouble may run from acute indigestion, through cholera infantum, to ileo-colitis, or either of these may be contracted separately.

Temperature and diet must be guarded if these disorders are avoided, and the latter is the most important. If the diet is all right in every way there is little to be feared. In these diseased conditions as well as others, preventation is better than cure and it seems that the former is needed worse in this than in any other. If necessary, any kind of effort should be exerted to prevent any outbreak of indigestion and diarrhoea in children.

Milk is the universal diet of children, but enough care is not taken to see that it is always the best. Impure milk is cheaper than absolutely pure and wholesome milk and for that reason the former is so often used; that is, it is temporarily cheaper, but more expensive in the long run, just as any kind of lack of care is ultimately more expensive. Proper care in childhood means a more favorable oppor-

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tunity to go through life with a strong and robust body. We do not doubt but that the strong man, physically, is more able to cope with the troubles of life and to take advantage of opportunities that present themselves in the course of existence. We do not lay enough stress on the frequent permanent injuries resulting from diseases that are easily avoided and sometimes considered of little importance in childhood.

I will only mention a few symptoms in the discussion of this subject for most of them are too familiar to make it necessary. Diseases of this kind are usually divided into three forms, clinically, as follows acute diarrhoea, cholera infantum, and ileo-colitis. The first has a gradual onset with an increase in number of stools to pronounced diarrhoea and finally, temperature from 103 to 104. In the second we have a sudden onset with great prostration, vomiting and severe diarrhoea, and always a high temperature. In the third, we have a trouble that is most frequently the result of the other two, yet it may be a primary disease.

Under treatment the first thing thought of is prevention and here is where preventative medicine can do more toward saving life than in any other field of work.

Climate and environment are the two most important questions to be considered. Heat or warm climate or season and infective and debilitating environment encourages the development of diseases of this nature. We cannot change the climate or season so that of the cause of disorders must remain, but environment can be benefitted in most instances. Disordered digestion of any kind may be seriously considered in any child during the hot months. Usually the beginning trouble is not considered serious and the parents use home remedies for several days; some of these remedies might get results if the cause were removed, but the same irregular feeding is kept up or the same contaminated milk is fed with, of course, an aggravation of symptoms. Irregular and improper feeding at any time of the year has a tendency to cause diarrhoea in summer because of a weakening of the resistive force of the intestine; we should not fail to remind our patients of this fact. But when any trouble has arisen it is necessary that we treat in a prompt and vigorous manner. When more or less severe stomach or intestinal indigestion is present we should at once get at the cause, which, in the majority of cases, is contaminated milk, but may be irregular feeding; one of the most difficult things we have to do is to get the mother to stop feeding for a while, or to feed at regular intervals. The child cries because it has pain from indigestion or fever from an infected bowel and the mother gives it something to eat or drink to quiet it, that continues the trouble. A little starving is good for a child with any kind of disturbed digestion and if not that, a great reduction in amount of food. I tell my patients that the milk that a child drinks

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or nurses is the same to it as bread and meat to us, which they know would not be a suitable diet in any kind of acute digestive disorders in adults.

In a mild case of diarrhoea I give broken doses of calomel; to a child one year of age, one grain divided in eight doses a half-hour apart followed by oil. This will usually eliminate the undigested and infected contents of the gastro-enteric tract. The next step is not to put something else in that would again cause trouble, but give that as food which is sure to digest, such as barley or rice water, and a gradual increase with a stronger solution of these to diluted milk with lime water up to full strength food.

In more severe trouble as acute infection or cholera infantum, the same course is necessary with additional treatment of symptoms, especially the prostration. I will devote myself to the feeding, and control of the diarrhoea. The food in this should be the mildest possible and it may be necessary to continue the rice or barley water for some time. It is a good plan to change from one of these kinds to the other and also use oatmeal water; these can be seasoned with a little salt and made palatable. Many times a child will crave this diet and enjoy it because Nature keeps away the appetite for that which would be good in health. When the temperature subsides and acute symptoms are gone and there is craving for stronger food it is very essential to proceed with care. A small amount of milk may first be added to the barley or rice water and this very gradually increased. In nursing children the barley or rice water should be given before nursing and in that manner dilute the milk. Medicines can be given throughout the attack. Stimulating treatment and control of the diarrhoea are most essential. Strychnine is the best under head of the former and for the latter, bismuth in some form is good. A little opiates could be given but that is not necessary in every case. Bismuth combined with syrup of rhubarb is a good astringent preparation.

Another kind of trouble in which we have diarrhoea is ileo-colitis; this may be a primary disease, but in the majority of cases follows a neglected, simple diarrhoea and indigestion or cholera infantum. This disease lasts longer than any other mentioned in this paper, and next to cholera infantum is the cause of more deaths than any disorders of this gastro-enteric tract.

The temperature may be normal or up to 105 and is irregular.

In the treatment of this we may use drugs, first remove to part of the cause of trouble in a primary case and to benefit symptoms present. Calomel and castor oil are best for the former and bismuth with possibly opium to control diarrhoea. Large amounts of bismuth should be given to get results. The opium is only given for pain and tenesmus.

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I have had much satisfaction from colon irrigation in these cases; used warm, normal salt solution is excellent. It frequently controls the tenesmus and relieves pain, but it should not be used more than twice a day, as a rule, because it may become an irritant. I would especially urge that this be judiciously used in all cases that give any trouble in the treatment, for it is not used as much as it should be.

In this, as well as all other troubles of this kind we come back to diet as a part of the treatment. Nothing in the care of the case is as important as this, or requires as much vigilance. First, barley, rice, or oat meal water given as formerly mentioned. Sometimes it is necessary to continue this for days or weeks and because of this and the severity of the disease we have marasmus and malnutrition. Then comes with improvement of the attack a difficult matter of feeding. We have to begin to add milk, but it is sometimes difficult to decide how fast this may be allowed. The child is usually very hungry and the parents are anxious to satisfy it; this often results in serious trouble because they frequently disobey even the strictest orders and allow too much food. We may then have more trouble than the first attack. It is best in the addition of stronger food to use skimmed milk because fat is digested with difficulty. I usually begin the milk diet by adding a half ounce of the cereal water in only two feedings the first day; on the second day this same amount may be given in alternate feedings and by the third day this much milk may be given at each feeding. Of course, the best way is to proceed with caution and go slower than this in the increase of food if necessary and increase gradually to full feeding, for a severe relapse means in most cases more trouble and danger by far than the first attack.

In closing this, I would emphasize diet in the prevention and treatment of all gastro-enteric disorders. Care should be given little winter-time disorders, as a preventative of summer-time big disorders. Little and beginning disorders in summer should be vigorously treated to avoid big and lasting disorders. No attempt should be made to cure a case of summer diarrhoea by medicines alone. We should take the time and pains to impress on the parents the gravity of any trouble of this kind and enlist their hearty co-operation in its cure. Every detail should be explained and instructions written out. As near as possible reasons should be given them for every step taken; parents may think the child is starving, but if they can be made to know that crowding food at this time is worse than starving, they will more likely understand why, and carry out instructions in a wholehearted manner.

In this, as many other diseases, we need a campaign of education among the laity and with it there will be a great reduction of misery and suffering.

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COPIOPIA.

Dr. C. J. Lukens, Enid, Oklahoma.

In the creation of Man, the germinal cell from which he sprang contained segments for each and every organ and tissue of the body. Of all the segments that add glory, enjoyment and happiness to life are the segments that give us light. Following the first cry of a babe it perceives light, and that same visual organ continues to photograph everything before it, from the beginning of life to the end, experiencing the most brilliant light, and contending with the dim and defective lights.

Since the advent of electric lights, which have practically turned night into day, we have a marked increase in nervous disorders, and consequently a weakened and defective condition of the sight. An excessive amount of useless work, even in a normal eye, wears on the delicate nerve centers beyond necessity, and they become centers of irritation, conveying disturbed conditions to other parts of the nervous system. Just as a fracture can be produced to the skull by contrecoup, so can an injury be caused to the sight-centers by indirect application of a flood of light to the eyes, which will injure the delicate nerve-centers of sight. Just enough light should be admitted to the eye to perform the function, and not enough to bruise the nerve-centers.

How sweetly Nature tempers light! We look in the distance to the mountains, hills and valleys, and they convey restful pictures to the conscious centers of the brain. We should temper the light so that when the eye is under accommodation it is laboring under the least effort regarding the nerve-centers and muscles. The effort upon the nerve-centers begins early in the morning and continues until late at night. For an average of sixteen hours the visual centers are constantly under strain. No other centers in the nervous system are capable of such endurance.

What a miserable world this would be if sight were suddenly extinguished! God gave us light, and sight, and we should be continually mindful of this greatest of all blessings, and use every effort to prevent the early worn out conditions of sight. Muscles have energy stored in them but all such energy depends on the human powerhouse. Nerve-force that performs all the functions of man is one of these forms of energy manifestations. The nerve-power of the eye must be kept at normal in order that the muscles of the eye will properly perform their work. The muscles of accommodation are so delicate that a slight deficiency of nerve-energy will seriously interfere with their function and perhaps totally destroy accommodation. The occasional overtaxing of the eyes may not result in observable injury, but oft-repeated excess will deprive them of their functioning power.

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Of all the organs of the body, the eyes are capable of demanding and obtaining the greatest amount of nerve-energy. The feeling of vision is the greatest of all the senses, for it is aroused by light, and the same exciting element, by continued application, produces a worn-out condition of the eyes. Rays of light reflect from various objects, pass through the cornea, aqueous humor, the chrystalline lens, the vitreous body, and then reach the retinal nerves. The delicacy of this touch on the retinal nerves is inconceivable, and its constant application by both soft and irritating mediums of light, gradually but surely reduces the visual acuity, and as the years go by we experience a dimming of vision; and many young persons find they are in the midst of refractive errors brought about both through neglect and abuse of their eyes. They have failed to apply the methods necessary to preserve their visual organs and the nerve-centers governing sight. A patient exclaims, "Oh, there is nothing wrong with my eyes, for I can see perfectly!" He may have perfect vision and yet a most destructive brain-strain may exist. All the work connected with the function of sight is done at the base of the brain. We do not see in the eye,—it is simply a camera that photographs the objects.

Young persons who complain so much of having pains at the base of the brain frequently have only mild refractive errors (in most instances astigmatism) which, if neglected, will slowly but surely disturb the nerve-energy of sight, and cause premature worn-out conditions of the sight.

It has not been my sole object in this paper to deal with presbyopia and worn-out conditions of the eyes in those of three-score years or more, but to cast some reflections and offer some suggestions to benefit the younger people, that they may learn to be cautious, prudent and careful concerning the most useful organ of the body—the eye.

Never draw a check on a bank in which you have no deposit: likewise do not draw upon the latent forces of the eyes. The eyes, both intrinsic and extrinsic, are capable of a certain amount of endurance, and no more, without irreparable damage.

The immortal Donders gave us the key-note to refraction and its remedial agencies, and we are traveling in the same path, but with improved methods and suggestions added since; and now that refraction has become an exact science, we are enabled to relieve, restore and protect declining visual energy. With the co-operation of the laity, who are becoming more interested in the care and early attention of refraction, we hope to avert the high degrees of refraction and untimely worn-out condition of the eyes, as have existed in the past.

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JOINT DISCUSSION.

DR. DAVIS.

These papers are very interesting and what Dr. Jenkins said about his reflexes is very important. That was touched on last night. The symptoms may be in the eye due to morbid conditions in other parts. I do not believe I could add anything to what he said, except to emphasize the points brought out in both particulars.

DR. NEWTON.

I enjoyed Dr. Jenkins' paper very much. I treated two patients. A patient came in from the country and had a diagnosis and after the diagnosis the Doctor said he did not find any vision. Her vision was about 20-40 and she was wearing a 75 sphere. The trouble is we will satisfy ourselves without close enough examination and testing. I was sorry I missed part of Dr. Jenkins' paper.

DR. FERGUSON.

The subject of ocular reflexes is so well established that I do not believe I will take up much time in discussing the paper. The Doctors reported the usual trend of conditions as they exist. The point made by Dr. Davis of reflexes referred to the eye from other points and also spoken of by Dr. Jenkins in the report of some of his cases ought not to be lost sight of. Nasal trouble and throat trouble and other trouble—this gives us the idea—in any case of reflexes such as nausea or vomiting and head ache and so forth we have the cause and so the eye must not be forgotten. There are many cases where it is not neccessary to give full grades of glasses and others where it is necessary to go above. I think each case should be for the judgment of the physician. I thank the Doctors for their papers.

DR. WESTFALL.

It is true as Dr. Ferguson says that each case is a case by itself. I have found a number of times and I recall one time a woman forty years old where I was able to correct from about 95 sphere to a 50 cylinder and she wore about a 25 sphere and 50 cylinder and that is as much as she could be comfortable with. I think most of you find our cases come more or less in crops. I have noticed recently a number of cases along the line of reflexes in which an examination of the nose has solved the problem. In a majority of these cases they complain of the eye and head ache which they say they think comes from the eyes. In some cases these did have errors in refraction, but after the nasal condition was eliminated this other cleared up. In some of these cases the refraction was properly corrected and they wore the same correction after the operation as before and in others there was a change.

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DR. MCHENRY.

These are certainly very interesting papers. The subject of ocular reflexes is not one we meet every day, and when we do meet it we ought to be able to go into it correctly. In a paper of Emerson of Kentucky he had seven cases where he got results in the correction of the septum. Several of the cases were able to leave off glasses entirely.

On the subject of Copiopia: I have one case in mind where a man came to me a year ago, forty-three or forty-four years old who had been refracted by such men as Stevens and he had ben told that he had nose trouble, and from what cause I do not know, but I was not satisfied until I had refracted him. He was unable to read with glasses less than two and one-half diopters. I told him, "You ought to be able to get that down." And I gave him about one and one-half and he came back in a few months and said he had tried them and wore them most of the time, but they were not satisfactory. "It is more comfortable to go back to the 2½ diopters." He was a man forty-four or forty-five years old, but had lived sixty or sixty-five in reckoning his age by the heart, arteries and so forth. He had led a hard working life. That is the only case I ever had where I was unable to find any refractive error and yet the man needed two and one-half diopters to read.

DR. BARNES.

Copiopia is a trouble we have to contend with and the ocular reflexes are very interesting. We do not give enough attention among our profession to the reflexes. A few of our men are cranks on the refraction and they give us points that ought to be considered by our profession. We find lots of men are giving much time to it and they get as good results as we do and in order to keep abreast of the times we should give it more study; and the papers brought out here this morning the importance of having a general knowledge of medicine so as to be able to make diagnosis of cases, because the symptoms are so varied that it is hard to tell whether we have got some trouble causing the eye trouble or the eye trouble is causing other trouble. The papers should be considered by us all.

DR. STOOKSBURY.

I do not wish to detain you long. The papers have been very well discussed and we are also ourselves familiar with the reflexes and while I heartily endorse the papers I was thinking of one instance I have noticed in my practice of these reflexes. I do not know how to explain it: A person coming to you suffering with this ocular head ache which we usually get results from by properly fitted glasses. I have found in the small errors of refraction we have great suffering. The people will complain more of an error that is not so much an error.

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THE CHAIRMAN.

I will ask Dr. Lukens to discuss Dr. Jenkins' paper.

DR. LUKENS.

I do not know that I could add anything to Dr. Jenkins' paper. It is very carefully gotten up and gone over. The question about reflexes has been one of great magnitude and should be studied carefully and from every standpoint. Specially difficult cases should be looked into to see if there could be a possible remote condition from the eye, which was producing the condition of the eye.

THE CHAIRMAN.

I will ask Dr. Jenkins to discuss Dr. Luken's paper and close the discussion on his own.

DR. JENKINS.

One point I want to emphasize: We should not make a demand upon the latent vision. It is like drawing a check on a bank with no money. Whenever a demand is made the anatomy of that individual is going to suffer somewhere.

As to anything more about my paper, I do not wish to discuss it further. I thank you for your liberal discussion of it and your patience with me in digressing from the subject. The last case, number eight, I reported was a recent one and of so much interest and I was a little puffed up for relieving the boy after having so much trouble that I took the liberty of imposing on you and I thank you for the spirit in which you received it and want to emphasize that ocular reflexes are not the only reflexes. I am sorry there are not some more of the general practioners here to give us the benefit of their ideas on reflexes they meet and the disturbances they are called on to treat caused by trouble in the eye.

THE CHAIRMAN.

I'll ask Dr. Lukens to close the discussion on his paper.

DR. LUKENS.

I want to mention one thing in connection with Dr. Stevens' case: It has been my observation and experience when people get their glasses they very frequently have an over-correction. My idea is to give them as little as they can get along with. Of course, I think the correction should be such as will bring comfort.

This section is now over its program, as I understand, and I have a case I would like to speak of if there is no objection. It is very short.

THE CHAIRMAN.

Is there any objection to the Doctor's reporting the case?

No objection.

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DR. LUKENS.

There was a young man from our country, who had been in the Philippine service, who was referred to me for a pension. He came to me reporting he was absolutely blind, and here is a condition that I want to mention, I can not account for: That I could throw light upon the eye and throw the light off it and the pupil did not respond. He was twenty-two years old and he mentioned he was operated on for appendicitis and the doctor in operating on him spilled some ether in his eye and that caused his total blindness, and I said, "I do not understand why you should be blind for a long period. Ether at its worst, would only have a transitory effect."

He said, "I am blind, just the same." And I said, "Young man, I cannot reconcile myself to the condition." That matter made me suspicious. I said if the man was entitled to anything he was entitled to the $72.00, and I so reported, but I put a question mark after it. They asked me why I put the question mark there, and I told them I suspicioned the fellow, but did not catch him. I threw the light on his pupil and it did not respond. He had indications of optical nervous disease. I want to say that this same man got by three army surgeons, and got out of the army service. He wanted to be released and his father assisted him, and he got $72.00 a month. The agent came back to me about three months afterwards, inquiring who had brought him to my office, and I described the man to him, did not know his name, and he said, "That is his father. And we intend to prosecute his father for he is back of all this. Don't you know this fellow went out from your office and in three days after he left your office he pitched a game of ball and won the game?"

His pupil absolutely did not respond to the light and there was no dilation. He got by me and three army surgeons, but he got by me with a question mark. The reason I mention that is because the man had such complete control of his eye.

DR. MCHENRY.

Did you examine the fundus with ophthalmoscope?

DR. LUKENS.

Yes. I took the field of vision and he absolutely did not have any field of vision, only central vision, so far as I could tell. He claimed he could see my hand three feet away, through central vision, but could not see me any other direction from his eyes. He only had vision enough to see my hand three feet from his eye. He did not claim to be absolutely blind, but so nearly blind as would get him the pension.

EAR COMPLICATIONS FROM ADEN IDS.

By H. Coulter Todd, A. M., M. D., Oklahoma City.

(*Professor of diseases of the ear, nose and throat, at the Southwest Post Graduate Medical College and Clinical Lecturer on diseases of the ear, nose and throat at the State University School of Medicine.*)

Adenoids in children have ceased to be looked upon as trivial Their effect in disfiguring the face, causing the narrow pinched features, the dropped chin with its idiotic expression, the high arch with the protruding irregular upper teeth, the contracted chest, the general anaemic condition, the disturbed breathing and the unnumbered nervous manifestations are quite familiar to most physicians and many parents.

The more serious effects of adenoids, namely, their injury to the ears of the child, have not been so generally recognized. *It is conservative to state that 85 per cent of all earaches, 90 per cent of all deafness and 95 per cent of all discharging ears in children are due to adenoids.*

Earache is due to an inflammation of the middle ear and tympanic membrane. The old treatment of equal parts of tinctura opii and oleum dulcis is seldom indicated except as a measure for temporary relief. In a large percentage (85 per cent at least) it will be found that adenoids are present in the vault of the pharynx or about the fossa of Rosenmuller causing obstruction to the pharyngeal opening of the eustachian tube. This interferes with the proper drainage of the middle ear, prevents the passage of air into this space and causes the retention of any matter capable of producing inflammation and acute catarrhal disturbances. Large quantities of adenoid tissue is not necessary to cause disease of the middle ear. Very small growths in the region of the eustachian orifice producing few, if any, of the more noticeable symptoms of adenoids and hence often overlooked, may cause the most serious and aggravated forms of middle ear disturbances. An inexperienced operator may easily fail to remove these smaller growths and hence not obtain the beneficial results desired. On the other hand, there are many who deem an operation unnecessary unless the child has all the marked symptoms, such as the adenoid expression, difficult nasal breathing, etc. Only those with special training or experience should pass final judgment upon all cases of suspected adenoids. Recurrent earache in a child should call for a very careful examination of the vault of the pharynx.

Deafness is a serious complication of adenoids. It may or may not be accompanied by pain in the ears. The only ear symptoms noticeable with the child may be that he is more or less hard of hearing in one or both ears. This form of deafness is due almost wholly to eustachian obstructions so that the air may not pass into the

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middle ear and maintain an air pressure upon the inner surface of the tympanic membrane equal to the normal atmospheric pressure upon the outer surface. As a result the tympanic membrane is pushed inwards bringing pressure to bear upon the ossicles, which renders them less motile and interferes with the sensitive vibration of the foot of the stapes within the foramen ovale. Deafness may also be due to inflammatory trouble in the middle ear, either purulent or non-purulent. This, as will be shown later, is due to the presence of a diseased and enlarged pharyngeal tonsil (adenoids). The injury done to the middle ear and hence the deafness due to this form of middle ear affection is often more or less permanent. The fact that practically 90 per cent of all deafness in childhood is due to the presence of adenoids should cause us to endeavor to see that they are always removed early and completely.

Discharging Ears in childhood is one of the most serious conditions with which they may be afflicted. The sequellae of purulent otitis media may be partial or total deafness, facial paralysis, impaired mentality, and even death from mastoid abscess, brain abscess, sinus thrombosis or other grave complications. The physician who indifferently allows the adenoid children of his patrons to remain uncared for subjects them to all of the above possibilities, which if they do not actually destroy the child, frequently maim him for life and impair him for the greatest usefulness. *The statement that children outgrow adenoids is false.* These growths do atrophy in most instances after puberty, but then they have already wrought all their serious harm and brought about conditions which never can be overcome.

The reason that so large a per cent of otitis media purulenta (95 per cent) is due to adenoids is quite apparent. The infection enters the middle ear by way of the eustachian tube, being forced up into the tube during the act of blowing the nose. The presence of adenoids prevents the free return of the infective material, hence it is dammed back into the middle ear where it does such serious harm. Remove the adenoids and you at once establish drainage by way of the eustachain tube and if the pyogenic process has not gone to the point of bone necroses or the mastoid process had not become infected, a large percentage of these discharging middle ears will get well without any further treatment.

When shall adenoids be removed? As soon as they can be detected. They are frequently present in infants and interfere greatly with their ability to nurse the breast. Nothing can be gained by delay, and all the grave possibilities mentioned in this writing as well as the many others we have not chosen to discuss, constantly menace the child while adenoids are present.

To recapitulate: Adenoids in children are responsible for a large

percentage of all their troubles, causing earache, deafness and discharging ears. A discharging ear from purulent otitis media means a ruptured tympanic membrane, or the ear drum as it is incorrectly called.

REPORT OF A CASE OF INTUSSUSCEPTION IN AN ELEVEN-MONTHS-OLD CHILD.

W. E. Dicken, M. D., Oklahoma City, Okla.

In intestinal occlusion, we find in looking through the literature, on the subject, such names, as ileus, volvulus intussusception, iliac passion, intestinal strangulation and miserere colic, which were employed to describe a morbid condition, characterized by absolute constipation, ballooning of the stomach, uncontrollable vomiting and severe pain.

For a long time intestinal occlusion was considered to be the result of spasm, then the intestines were supposed to be strangulated, but in intestinal occlusion, we have a term, which is applicable to cases of intestinal obliteration. Intussusception possesses the characteristics of both strangulation and obliteration, we understand by this the entrance of one portion of the intestine into another portion and in most cases, it is the upper portion which enters the lower portion, but may be ascending. Such an invagination may be found to consist of three tubes, the outer one we may term the intussuscipiens, the part that enters is called the intussusceptum, the union between the two is the neck, and the junction between the entering and returning intussusception, is called the head or apex, this of course is the usual condition, but we may have, a double intussusception, in which there are five tubes instead of three.

In children practically, the sole cause, of intestinal occlusion is some form of intussusception. Invagination occurs most frequently in children under fifteen years of age. About forty per cent of all cases, collected from the literature occurs during the first year of life, in 244 cases 142 were males, 102 females.

The ileocecal valve seems to be the most common location and the invagination does not occur, actually at the valve, it is usually in the neighborhood, however, either above or below. When intussusception involves the ileum, we usully find it in the lower portion: if the large bowel is the part affected, the sigmoid flexure is the part of invagination.

Intussusception of the rectum or of the duodenum is extremely rare.

The long mesentry, in early life, of the cecum is probably the cause of the most frequent ileocecal variety. While later in life the cecum becomes more firmly attached to the posterior abdominal wall;

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and in early life, again we have a great disproportion between the size of the ileum and that of the cecum.

We must also bear in mind the differential diagnosis of three special varieties of intestinal occlusion, namely, volvulus of the sigmoid flexure, fecal impaction and intussusception in children, for in any form of acute intestinal obstruction, we have sudden pain, intermittent or constant, which tends to become constant with time, vomiting early, which is severe and becomes feculent, constipation more or less absolute, with abdominal distention and shock. No trust-worthy conclusion can be drawn from the seat of the pain, to the seat of the obstruction, unless local peritonitis comes on. In all forms of obstruction, the region of the pain is usually the navel, in complete obstruction the pain is constant, though with exacerbation, while an intermittent pain points to a partial obstruction. In acute cases it is impossible, to discern coils of the intestines through the abdominal wall

With these few precursory remarks, I wish to report the youngest case of intussusception, that I have ever had the opportunity, to operate upon. About three o'clock on the afternoon of April 27th, 1912, I was called to see an infant, eleven months old, which had a temperature of 102 and a very rapid pulse, assuming all the types, of a child suffering with auto-intoxication, she had a history however, of several copious bowel movements, several hours before, at which time, the patient strained and cried quite a bit. Not recognizing fully at this time, my patient's conditions, I prescribed some mild chloride powder, assuring the mother that I thought the baby would improve. In less than four hours from my visit, the mother telephoned me that the baby looked so strange, and was passing so much blood from the bowels, that she wished I would call again. The baby was found to be almost in a comatose condition, with a very rapid pulse, temperature 102, with paroxysms of straining, ejecting only a small amount of bloody mucus from the rectum.

I inserted my finger up the rectum, realizing by this time that I must have a case of intussusception, and I immediately touched, within two inches of the rectum, an oval mass, which we recognized as the head of the intussusception. We immediately advised an operation, and the patient was sent to the Oklahoma City General Hospital, and upon opening the abdomen, under ether anesthesia, we found that the ileum had invaginated the cecum, and the intussusception extending as far as the commencement of the decending colon, dragging the appendix in with it, forming of course a complete occlusion. We had no trouble in catching the intussuscipiens with one hand and using counter-traction, of the intussusceptum, with the other hand, and by these means, we pulled the one gut out of the other, bringing about a normal status and position of the ascending and transverse colon with the ileum. We did not stitch the bowel, but

closed the abdomen the usual way, consuming only ten minutes, from the time we made the incision, to the closing of the abdomen. The patient's bowels moved twice during the first eight hours, after the operation; but about forty-eight hours from the time of the operation, the patient had obstinate vomiting, not being able, even to keep water on the stomach, giving all the signs of ileus paralyticus. Realizing the seriousness of the condition, we prescribed five grains of powdered calomel by mouth, and instructed the nurse to give 1-200 grs. of strychnine q. 4 h. hypodermatically. To our gratification the patient rapidly improved, having free and easy movements from the bowels, making a complete recovery and up to this date, has no further symptoms of the former trouble.

I only mention this case, for three reasons, first, to note, what an early diagnosis, followed by surgical intervention will accomplish in so young a patient; second, the lack of return of the intussusception after the omission of intestinal suturing and third, the efficacy of heroic doses of calomel with hypodermics of strychnine of ileus paralyticus.

GANGRENE OCCURRING IN STATUS EPILEPTICUS—DEATH FROM SAPREMIA.

E. A. Thurlow, M. D., Norman, Okla.

REPORT OF A CASE.

Name of Patient—Grueter, G. Age 22, nativity, U. S. A. Occupation, farming. Admitted, March 28th, 1912.

Family History—Father and mother living and well. No history of epilepsy among antecedents.

Personal History—General health excellent as a child. At tenth year epilepsy began, attack increasing from Petit Mal to Grand Mal in type during first year. Seizures continued with increasing intensity at intervals of two or three weeks until present time. In January, 1912, there occurred a delirium (Probably epileptic delirium,) following seizures; patient escaped from home and when found toes of both feet were frozen. Amputation was performed shortly after this.

Examination at Time of Admission—Patient in stuperous depression, consciousness clouded, general apathy and mutism. Physical condition, appetite good, trophic condition good; pulse rapid and soft. Pupils react to light and accommodation, dilated evenly. Heart sounds weak, no murmurs. Feet cyanosed appearance. Edematous swelling up to malleoli. Unhealed, amputation wounds at metatarso-phalangeal joints on both feet with slight purulent discharge. Odor not offensive. Small perforating ulcer on ball of left foot, considerable tenderness.

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Under moist bichloride dressing (1-4,000), and internal treatment consisting only of increased diet with milk, eggs, etc., the amputation wounds improved rapidly. Digitalin was given hypodermically to support the heart.

Subsequent History—Mental condition clear after ten days. Amputation wounds entirely healed after two months, by second intention. Tenderness absent, patient walks well, no swelling or oedema, gain in weight of about twenty pounds. Patient feels well, but has occasional epileptic seizures.

August First—Following epileptic status of three days duration, wounds, in feet begin to break down and become tender. Bichloride dressing re-applied without improvement. Purulent discharge becomes increased steadily in amount and foulness, especially from perforating ulcer, which has reopened on ball of foot. General symptoms, malaise and loss of appetite.

August Ninth—Patient has severe chill with rapidly rising fever and profuse sweat, temperature 102.06 in axilla. Chills repeated after twenty-four hours, then at frequent intervals. Malarial test negative, Widal negative. These attacks of chills, fever and sweats continue with increasing frequency from day to day.

August Fifteenth—Purplish spot appears on dorsum of left foot. This breaks down, leaving an ulcer within twenty-four hours. Odor gangrenous, ulcer enlarges rapidly. Cyanosis of distal portion of foot. Temperature chart shows septicemic characteristics. Local cautery applied to gangrenous area.

August Seventeenth—Entire foot becomes cyanosed, diagnosis made of sapremia of gangrenous origin. Operation determined upon, Dr. C. S. Bobo in consultation advising amputation at middle and lower third of thigh. Ether anaesthesia, temperature of patient 104 at beginning of operation. Amputation by long dorsal flap method. Operation without incident except for marked oozing of dark blood from medullary portion of femur. Strychnia 1-40 grain and one pint of physiological saline administered hypodermically. Moderate amount of shock evidenced by restlessness and heart condition. Soft thready pulse, dilation of pupils, etc. Placed in bed with usual treatment for surgical shock. Death took place in four and one-half hours.

This case is reported to illustrate the marked lowering of resistance which takes place in status epilepticus, causing old healed wounds to undergo gangrenous degeneration.

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UNILATERAL SURGICAL KIDNEY WITH PRESSURE ON THE COMMON DUCT, CAUSING JAUNDICE.

CURT VON WEDEL, JR., Oklahoma City, Okla.

CASE REPORT.

In reporting this case, I do so because of its peculiarity, and to show how easily one may be mistaken in diagnosis in surgery of the upper abdomen.

Mrs. S., aged twenty-eight—no children—menstrual history negative—no illnesses.

PREVIOUS HISTORY.

Has been suffering with pain in back and right side for the past four or five years; pain of an indefinite cholicy character. Condition diagnosed as gall stones, inflammation of the stomach, peritonitis, etc. Patient able to do her daily work until present attack. Present attack began about three weeks before being called to see her, with a sudden sharp pain in the right epigastric region, which was referred to the shoulder, accompanied with fever, vomiting and a marked chill; has complained of daily chills since; was given quinine by physician in attendance.

At the time of my visit, patient complained of severe epigastric pains, stabbing in character, which were referred to back and shoulder. Had a chill a few hours before; temperature 103; pulse 86; sclera deeply jaundiced; general jaundice. Examination showed large mass in the right epigastric and lumbar region. Dullness running into the liver above and to the spine behind, extending almost to the linea alba in front. Marked rigidity and tenderness. Vaginal examination negative; blood count 14,000. Poly 84 per cent. Urine high specific gravity, dark in color, no pus, only a few leucocytes, no blood

Operation—Because of the uncertainty of diagnosis, small incision was made through right rectus; gall bladder normal, easily compressible, but a large retroperitoneal mass was immediately palpable, lying adjacent to the gall bladder and ducts, causing more or less pressure. Diagnosis of kidney condition was made. Left kidney palpated and found to be normal. Anterior incision closed. Patient turned on side and lumbar incision revealed a large surgical kidney. Kidney so large that incision was extended almost to anterior superior spine. Kidney badly adherent and delivered with great difficulty, causing rupture of a large abscess with considerable escape of pus. Pedicle very deep and because fear of legature slipping, clamp applied and protected with gauze. Incision closed with deep though tough silk worm gut. Clamp removed in three days and drainage continued. Wound healed in about six weeks. Patient made an uneventful recovery and at present time has no symptoms and is in

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very excellent health. Jaundice cleared by the time she left hospital —that is, two weeks.

Kidney on examination, was found to contain several large abscesses, having no apparent connection with the pelvis; there being little or no evidence of a pyelitis, which was probably the reason for the clear urine. Jaundice was undoubtedly caused by the pressure of the upper pole of the kidney against the ducts.

This case is of most interest, as it shows that a surgical kidney by pressure may cause jaundice, and also that its urine may be free from pus. It is unquestionably true that the patient had pus in the urine at some time, but because of fibrous changes, the abscesses became walled off and so finally were isolated.

DR. FISHMAN'S VIENNA LETTER.

Vianna, Austria, Dec. 3, 1912.

In this communication I shall attempt to say a few words upon a subject which is far broader and greater than one can present in a very exhaustive article. I feel that I owe an apology, therefore, for taking up this topic, but thought that the readers would like to know something about the present European opinion of the use of Salvarsan and the treatment of Syphilis and shall give as far as I have been able to learn, some of the methods of those clinics with which I have thus far become acquainted.

Within the past few years the recognition and treatment of Syphilis have undergone radical changes. From the discovery of the Spirochete Pallida by Schaudinn and Hoffman, in 1905, to the presentation to the world by Salvarsan, by Ehrlich, in 1910, the researches and studies in this branch have been rapid and productive of considerable good results, although the state of syphilitic treatment, nevertheless, remains chaotic at the present time. That there is such great variation in the methods of treatment by the authorities in this work shows that the results have not been uniformly good and acceptable by all alike.

A few of the salient points which have been brought to light in the recent studies of the disease need be mentioned. The organisms spread rapidly through the body after infection so that distant metastases have repeatedly been demonstrated before the primary lesion had fully developed. Early changes have been demonstrated in the spinal fluid so that Lange, of the Weichselmann clinic, claims to make a positive diagnosis by means of his colloidal gold method in all stages of the disease, and even more specifically than by the Wassermann test during the early stage. The spread of the organism is principally by the blood stream and only regionally by means of the lymph vessels so that the distant lymph glandular enlargements are local manifestations of a preceding hematogenous dissemination. The wide-

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ly accepted laws of Profeta and Colles had their origin simply due to the fact that syphilitic cases were mostly not cured and therefore a previously infected individual was not able to contract the disease further. Since the introduction of the more energetic treatment and the use of the serologic methods of diagnosis to verify the presence or absence of the disease repeated exceptions to these laws have been shown. Cases of reinfection are not at all rare and a positive Wassermann reaction is always obtained in a mother who gives birth to a luetic child.

The most interesting series of ape experiments in connection with the study of Syphilis have just been reported by Finger. It is well known of course, that the anthropoids become infected in a typical manner going through the various stages of the disease. Finger has shown however, that the lower species, namely Macaca type do not produce the typical symptoms but an abortive type of the disease. These animals are susceptible of infection only in certain parts of the body, the genital region and about the eyes. The primary lesions consisting of a number of soft brownish small pea-sized eruptions which gradually become serous and pustular in character, develop after an incubation period of about fourteen to twenty days. The animals do not seem to suffer further from the infection and this rash disappears after a comparatively short time. They do not produce any further symptoms except a recrudescence of this eruption on the same locality after five or six months.

This with other observations led Finger to presume that possibly these manifestations were similar to those of the variolar manifestations of the cow-pox and he thought perhaps the pustular eruptions might act as efficiently in vaccination against Syphilis as vaccinia does against smallpox. He therefore sent a number of these infected animals to Metchnikoff in Paris who found that not only did it not immunize the apes against subsequent innoculations of Syphilis, but that some of his animals contracted a typical primary lesion and subsequently ran through a typical course of the disease.

Further work along this line showed that these Macaca actually harboured Spirochetes in some of their internal organs, spleen, bone-marrow, ovaries and testicles, without producing pathological changes in them. The other organs however, were free from the organism. This he concludes, shows how an infection may remain latent for long periods of time and then for some reason suddenly break out anew. Also that certain organs have the power to overcome and resist an invasion of the organisms.

The opinions of Rome Congress held during the summer were that the injection of 606 gets rid of the greatest number of Sphirochetes possible and that the injection of several small repeated doses followed by mercury injections will dispose of those in other parts of the body.

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It was the opinion of the adherents of Salvarsan Therapy that large single doses are not of the greatest value and that the Salvarsan should *always* be given intravenously once a week and that the length of treatment is governed by the Wassermann reactions. The tests made at intervals gives the most reliable information of the state of the disease. They were also of the opinion that the Neosalvarsan was weaker than the old Salvarsan and not less dangerous nor better.

Among the German speaking people there is a great difference of opinion regarding the benefits of the drug varying from that of Weichselmann of Berlin who uses only Salvarsan to that of Finger of Vienna—one of the old school—who uses it only exceptionally.

In the early period, that is, during the primary stage, the efficacy of Salvarsan is conceded by nearly everyone and it is used practically by all authorities as an abortive treatment. Some excise the ulcer in all cases, others only when it is conveniently located, still others, not at all.

Weichselmann uses small doses 0.15 to 0.3 Grams every three to four days until the Wassermann remains negative and he really obtains brilliant results as far as he is able to follow them. He uses this method in all stages and in all cases and calls to aid mercury only when the symptoms are refractory, and refuse to respond to vigorous Salvarsan treatment. He is of the opinion that the drug is not responsible for the ill effects after the use of Salvarsan but lays stress upon two points—first, errors in technique upon part of the operator and second, irregularities on part of the patient, chiefly in susceptibility of the kidneys. In the first class of errors he claims that the use of a freshly double-distilled water is absolutely necessary for the preparation of the drug and that it must not be allowed to stand for any length of time after solution. In his second source of ill-effects, he points to the fact that a reaction on part of the patient when the tecnique is perfect will nearly always show a reduction of urinary excretion with albuminuria. He states that a febrile reaction is abnormal and is not a reaction on part of the organism as has been thought. Weichselmann claims to have given over 30,000 injections without a single case of optic atrophy.

Lesser of Berlin is more conservative with the use of the remedy and employs it is the very early stages exclusively as an abortive treatment in small frequently repeated doses with excision of the primary ulcer. In the latter stages he also uses Salvarsan but in larger doses aided by Mercury injections as the soluble salicylate or as the calomel emulsion 10 per cent in oil and controls his treatment by the Wassermann reaction.

The Viennese generally tend to favor mercury, Finger particularly using Salvarsan as little almost as Weichselmann does the mercury. He gives the ointment rubbings for home use and the injections

of the Salicylate or Cyanide when the patients present themselves for treatment. Salvarsan is used by him only in the primary cases and those refractory and recurrent cases which do not do well with mercury. This of course is a confession that the new drug has a great use.

Oppenheim takes the stand that Salvarsan is valuable in the early stages and gives it in small repeated doses in the primary and early secondary lesions. This is supplemented however, by the use of the soluble mercury injections particularly the Salicylate, while in the later cases he, too, gives mercury in preference to Salvarsan, except in those cases which do not react promptly to mercury treatment.

I have purposely refrained from stating dosages because they vary so much but will only say that a large dose of Salvarsan is considered to be 0.5 to 0.6 G. and a small dose 0.1 to 0.2 G. The soluble mercury salts are given 0.01 to 0.03 G.—(1-6 to 1-2 grams) intramuscularly or subcutaneously. There are individual variations that are controlled and regulated by the serologic findings in each case.

C. D. FISHMAN.

EDITORIAL

SECTION CHAIRMEN FOR THE ENID MEETING.

As the different Section Chairmen for the Enid meeting which will be held May 13, 14 and 15th will soon begin their activities for making up the program for that meeting it will not be out of place to state their names and addresses here for the information of those who may be interested.

Surgery—J. Hutchings White, Muskogee.

Pediatrics—W. M. Taylor, Oklahoma City.

General Medicine and Nervous and Mental Diseases—C. J. Fishman, Oklahoma City.

Eye, Ear, Nose and Throat—J. H. Barnes, Enid.

Gynecology and Obstetrics—S. H. Landrum, Altus.

If you propose to offer a paper for this meeting you should select your subject as soon as possible in order to avoid possible delay at the last moment in the preparation of the program.

The making up of this program is an enormous task, requiring a great deal of correspondence and the chairmen will appreciate any lightening of the task you may help them to by promptly answering letters with reference to the program.

CHRISTIAN SCIENCE AND DIAGNOSIS.

Failure of Christian Scientists to Differentiate Dropsy and Pregnancy.

To the Editor:—Apropos of the wonderful cure (?) of Mabel Hite by the Christian Scientists as reported in The Journal (Nov. 23, 1912, p. 1896), I think that the report of a case in which I was called last month will be of

interest. I was engaged by a man to attend his wife during her confinement, which was expected to occur in a few weeks. He said that they were Christian Scientists and gave me to understand that I would be called when labor began. In answer to my questions, he stated that his wife was feeling well and that all of the functions were normal. In due time I was hurriedly called, as the woman was said to be in labor. When I arrived at the house I was greatly shocked to find the patient sitting up but in a dying condition. On each side was a sister "healer" assuring her that she was just nervous, when in fact she was almost pulseless, lips blue, cold to the knees and elbows and gasping for breath.

As soon as I saw the conditions I had counsel called. We found that the patient was not pregnant, but had general dropsy. She died within two hours. A post-mortem was refused, so we were unable to say what caused the dropsy. Oh, Religion, what fearful things are done in thy name!

B. N. STEVENS, M. D., Chillicothe, Mo.

—Journal A. M. A., Dec. 21, 1912

This only evidences the weakness of all schools or cults who propose to diagnose and treat disease without proper preparation by long and faithful study along approved and well tried lines: to this case citations innumerable almost could be added, but it is useless to do so unless we as the regular and predominant school of medicine having the welfare of millions of people on our hands can appeal directly to the people by our works and show them we have something better to offer them.

It has been hinted that incompetency and ignorance in our own ranks has had something to do with the dissatisfaction of a portion of the people who have gone to other sciences (?) for relief, and this may in a measure be true and one is inclined to give credence to such argument when we recall that in our own profession we have similar cases arising. A case in point occurred in Muskogee in the hands of a practitioner who had been out of college more than thirty years—and the word out is used in its fullest sense, for it is doubtful if he ever returnd for any purpose. This practitioner prepared a patient for operation for a tumor and had hospital arrangements made for the operation, which was set for a few days away when another physician was called, diagnosed pregnancy and in considerably less than a week delivered the patient of a living child.

For the Christian Scientist those who think will offer the excuse of ignorance, or fanaticism or both, but for the physician there is no excuse except ignorance which he has no right to fall back on.

Our own Augean stables will not be cleaned in a day, but only by years of patient study and application.

THE COLLECTION OF BILLS.

The collection of bills for services is one of the most important matters a physician has to provide for and it is notorious that many of them suffer on account of their lack of business ability and their diffidence in the collection of what is justly due them.

The Muskogee County Medical Society has recently taken a step that may lighten the load on some of its members in this respect. Following the plan and suggestions of the Los Angeles County Medical Society with some slight variations to fit local conditions this

society recently appointed a committee to consider all phases of collections and collection agencies which resulted in the selection of a firm of attorneys to handle all collection matters the members of the bureau might see fit to give them. An initial charge to cover cost of printing etc., was made and the funds of the bureau though collected by the secretary of the society are handled separately, this due to the arrangement which makes is non-compulsory on members to join the bureau.

Members were requested to turn in their bills for collection, both good and bad. As the agency progresses it is proposed to furnish each member with a list of those who are not in the habit of hurrying to the doctor with their cash after he has rendered them some good service and after that the individual physician may take his chances with that particular patient. In other words there will be no blacklisting and if a physician wishes to practice for a person who happens to owe a dozen other physicians he is at liberty to do so, but the bureau proposes to keep every one concerned fully advised.

HEXAMETHYLENAMINE.

Recent observations of opinions with reference to hexamethylenamine in infectious processes generally indicate that this drug has perhaps a wider range of usefulness than is contemplated by the general practitioner.

We find that it is used actively by the surgeon, the internest, the specialist and those having epidemic situations generally to handle.

Great confidence is accorded the drug by surgeons in the prevention of meningitis following skull and brain injuries and by aurists in infections involving the mastoid and middle ear. It has been noted in pneumonia that the complications of pleurisy and otitis media are lessened by the use of this drug in from ten to fifteen grain doses four times daily. It has been shown that hexamethylenamine depends for its virtues on its liberation in the body fluids of formalin, which if true would entitle it to a very wide range of usefulness. While there is considerable discussion as to its value in meningeal infections and it must be used for this purpose in very large doses, doses so large that some hold them to be decidedly irritant and dangerous; yet the preponderance of weight favors its use in such conditions. The dosage for bladder conditions and kidney affections varies from five to ten grains several times daily to one to two hundred grains daily in suspected meningeal infections, these latter doses being considered irritant and possibly productive of cystitis in some instances. Its use in typhoid is a matter of some question, but in malarial infection and convalescence therefrom it is of decided value.

In gonorrhoeal and other bladder and urinary infections it is decidedly effective and probably in this field it may be said to be the most surely effective drug we have.

XUM

PERSONAL AND GENERAL NEWS.

Dr. Ferdinand Shoemaker of the United States Indian Service, temporarily located in Denver, is now making a detailed study of tuberculosis among the Indians of Oklahoma.

Dr. Loren C. Presson, and Miss Maud Keith of Alva were married at Alva on December 12th. Dr. Presson is surgeon for the M., K. & T. Ry. Co. at Osage and after an extended wedding trip in Texas and probably to the canal zone the couple will return to Osage where they will make their future home.

Dr. B. W. Freer of Nowata is in the Chicago Policlinic for postgraduate work.

Dr. J. A. Connell of Oklahoma City has removed to Sapulpa.

Dr. Goddard, formerly an interne of St. Anthony's Hospital, Oklahoma City, has located in Mounds.

Dr. A. E. Davenport, Oklahoma City, health officer for Oklahoma County is doing postgraduate work in New York City.

Dr. E. S. Ferguson of Oklahoma City has returned from a visit to his old home in Ontario, Canada.

Dr. J. S. Jacoby of Oklahoma City has located in Fallis.

COUNTY SOCIETIES.

Jackson County Medical Society met in Altus for the annual election of officers December 2nd. The officers elected were S. P. Rawls, president; R. E. Fox, secretary, both of Altus. It was decided to adopt the study course as prescribed by the American Medical Association in addition to clinics and to meet weekly hereafter.

MARSHALL COUNTY.

The Marshall County Medical Society announced its program for December 10th which had for its consideration the subject of epidemic meningitis. This program was decided on after a decision of Marshall County physicians that the state would probably have to contend with this disease during the coming months. Dr. John A. Haynie read a paper on "Diagnosis of Meningitis," Dr. T. A. Blaylock on "A Report of Twenty-One Cases of Meningitis in Marshall County," S. P. Winston "The Manner and Modes of Treating Meningitis by Means Other Than Serum," "The Quantity, Time and Mode of Administration of Meningitis Serum," is accredited to W. Lee Davis and J. L. Holland read a paper on "The Prophylaxis and Precautions to be Observed by Physicians and Other Attendants in Handling Cases of Meningitis."

XUM

PONTOTOC COUNTY.

This County held the banner meeting of its existence on December 2nd. The meeting was unusually good by reason of the fact that the entire day was taken up with well worked out papers and clinics and was attended by many men from other cities who added to the interest of the affair. Dr. L. F. Watson, Oklahoma City, delivered a splendid paper on homorrhoids" which was illustrated by lantern slides, with especial reference to the use of cocaine as an anesthetic. A banquet was tendered the society by local physicians and the citizens of Ada in the evening. This society has shown a greater growth in numbers and interest than any new society ever organized when the number of physicians of the county is considered.

TILLMAN COUNTY MEDICAL SOCIETY.

Met at Frederick, Okla., November 26, 1912, for its regular monthly session.

An interesting clinic came before the body. The patient was examined and the findings discussed by those present.

Dr. A. B. Fair, Frederick, read a paper on "Chorea" which was highly appreciated.

Drs. C. A. Howell, Loveland and I. A. Briggs, Hollister, were received as members of the County society.

Next meeting will be held at Grandfield, Okla.

GRADY COUNTY.

This society held its annual election December 6th, R. P. Tye, was elected president and Dr. Martha Bledsoe returned as secretary. Arrangements were made for the annual meeting and it was determined to have a banquet at that time.

MUSKOGEE COUNTY.

Meeting of December 9th.—O. C. Klass elected president, A. B. Montgomery, vice president; W. B. Newton, secretary-treasurer; P. P. Nesbitt, censor for three years. Program: Dr. P. P. Nesbitt reported two cases of nephrolithiasis. The committee on collection bureau reported and the report was accepted.

December 23, 1912.—Program: O. C. Klass presented a case with total paralysis of lower extremities following child-birth. Dr. Claude Thompson read a paper on the Treatment of Compound Fractures. Dr. P. P. Nesbitt on behalf of the adjusting committee stated that a contract had been entered into for 90 days, with the privilege of extension, with the firm of Yancey and Powell to represent the society in the matter of collections.

XUM

A TRIP TO EUROPE.

To the Editor:—The visit by a party of German physicians to the recent International Congress on Hygiene and Demography has proven that a well managed Travel Study party of physicians can make a trip through a foreign country in a far more pleasant and profitable manner, and at less expense, than can be done by traveling alone. Clinics can be arranged in advance, lectures prepared and visits made to the best hospitals and health resorts, with the assurance of a hearty welcome from the leading medical men of the localities visited. For those unable to speak the languages of the countries on the Continent, this disadvantage is reduced to a minimum and the benefits of the trip correspondingly increased by traveling with such a party.

The coming International Medical Congress, London, August 6-12, 1913, gives a splendid opportunity for organizing an American tour of this sort and plans are now ready for a physicians' travel study tour, leaving New York July 3rd for the most important capitals and health resorts on the European Continent: Paris, Munich, Carlsbad, Brussels, the Hague, Amsterdam, etc., ending with the week of the congress in London.

The plan of this tour has been seen and endorsed by Drs. A. Jacobi, T. C. Janeway, Ch. G. Kerley, O. G. T. Kiliani, L. R. Williams, Wisner R. Townsend and others. Physicians interested in such a trip should write for further and more detailed information to Richard Kavacs, M. D., 236 East 69th Street, N. Y. City.

W. B. Saunders Company, medical publishers, are now established in their new building on West Washington Square—an ideal site right in the heart of Philadelphia's new publishing center.

The remarkable success of this house and the rapid growth of their business, with the increased facilities which this growth demanded, necessitated removal to larger quarters. They therefore erected a seven story building, housing all their departments under one roof.

Constructed of reinforced concrete, the building is absolutely fireproof and equipped with every modern aid for the manufacture and distribution of medical books and for the comfort and convenience of their employees.

A cordial invitation is extended the profession to inspect the new plant.

XUM

PITUITRIN IN DIFFICULT PARTURITION.

Every physician who has any considerable obstetrical practice owes it to himself and to his patients to familiarize himself with the oxytocic function of Pituitrin. Here is an agent which, according to reports in the medical journals of the Old World (notably of Germany) — if obstetricians adopt it generally, as now seems likely — is destined to rob childbirth of much of its pain and terror. What shall we say of such an agent that fails but once in over a hundred cases in which it is used? And that is just what happened in Dresden, according to a report of Vogt, of the Royal Gynecological Clinic of that city. Vogt adds: "It was not necessary to have recourse to forceps in a single instance in which Pituitrin was employed."

For the benefit of physicians who are uninformed on the subject, it may be said that Pituitrin is an extract of the posterior or infundibular portion of the pituitary gland. While in use for a number of years — chiefly, perhaps, as a hemostatic and heart stimulant — it is only of late, comparatively speaking, that its value in uterine inertia has been fully understood. The product is prepared and marketed by Parke, Davis & Co., to whom inquiries should be addressed for further particulars of this remarkable agent. Not very long ago the company issued a pamphlet in which a number of interesting and surprising case reports were published. We understand that copies of this Pituitrin pamphlet are still available and may be obtained upon application to Parke, Davis & Co., at their general offices in Detroit, Michigan.

THE COLON BACILLUS.

R. T. Morris, New York (Journal A. M. A., March 2), suggests that the colon bacillus may be at the present time the chief regulator of population and cause of the decadence of old age. Bacteria, which formerly caused disastrous epidemics, are practically under control through the progress of preventive medicine, but other bacteria, and especially the one in question, are still carrying on Nature's plans of reducing excessive population. The reason that the activities of this group of bacteria have been so long ignored is that the methods of search for them are of ecent development and do not yet cover all the field. While we recognize the destructive activity of the colon bacillus in gangrenous appendicitis, we do not so often trace its activity from this source to distant parts, such as infections of the pylorus or duodenum. From his point of view, the colon bacillus is often the original malefactor in these cases, though the adhesions that it produces in the upper abdomen are often overlooked by the physician. He believes it to be the frequent cause of ulcers of the stomach and duodenum and its activities in gall-stone disease have also been recently recognized. Pancreatic disease and diabetes can also be thus produced, and the proliferation of connective tissue which it causes is, he suggests, also seen in most cases of arteriosclerosis. The toxins it produces also attack the nervous system, and it may thus cause neurasthenia. If we are to assume that the colon bacillus is the cause of arteriosclerosis, we can easily rank this organism with the tubercle bacillus in increasing the death-rate. Experimental injection of the colon bacillus into the circulation has caused spinal disturbances, and Dr. H. G. Harris has found it abundant in the urine of a patient with infantile paralysis. One of these disorders, colon bacillus intoxication and infantile paralysis, may prepare the way for the other. One of the largest groups of cases in which the influence of the colon bacillus is overlooked by clinicians is the infections of the kidneys, and this is specially unfortunate since we can so readily control its growth in the urine by hexamethylen amin and benzoate of soda, as has been shown by W. H. Thomson. From the rectum it may readily affect the neighboring organs through the uretha and the vagina and be the cause of intractable leukorrheas, tubal infection, urinary incontinence and sterility. Its effects are sometimes so remote that it is not suspected, and Morris mentions as an instance a case of chorioiditis cured by operation for appendicitis.

XUM

SEVENTH COUNCILLOR DISTRICT MEETING.

Dr. P. P. Nesbitt, of Muskogee, has called a meeting for the purpose of organizing a medical society for the Seventh Councillor District. Similar societies have been organized in the various Councillor Districts over the state and have resulted in great good to the profession. Every physician residing in the Seventh Councillor District, who belongs to his County Society, will be a member of this Society, and those living outside of the district will be welcome. The program committee have labored hard to have an interesting and instructive program, and we earnestly ask the co-operation of the physicians of this district in helping to make this society a success.

Wake up, Doctor! Take a day off and come to Muskogee on the 27th of January, 1913, and let us have a profitable day together.

Yours fraternally,
J. E. Bercaw, Okmulgee,
W. A. Tolleson, Eufaula,
W. B. Newton, Muskogee,
Committee.

OFFICERS DIRECTORY, OKLAHOMA STATE MEDICAL ASSOCIATION SECTION CHAIRMEN.

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President—Jas. L. Shuler, Durant.
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Secretary—Claude A. Thompson, Muskogee.
Delegates to A. M. A.—W. E. Wright, Tulsa, 1912,
E. S. Lain, Oklahoma City, 1912-1913.
J. Hutchings White, Muskogee, 1913-14.

CHAIRMEN OF SCIENTIFIC SECTIONS.

Surgery—J. Hutchings White, Muskogee.
Pediatrics—W. M. Taylor, Oklahoma City.
Eye, Ear, Nose and Throat—J. H. Barnes, Enid.
General Medicine, Mental and Nervous Diseases—C. J. Fishman, Oklahoma City.
Gynecology and Obstetrics—S. H. Landrum, Altus.

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Next Meeting—Oklahoma City, January 14th.
Address all communications to the Secretary.

LEGISLATIVE COMMITTEE.

J. Q. Newell, Oklahoma City.
C. R. Day, Security Building, Oklahoma City.
John W. Duke, Guthrie, Oklahoma.

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OFFICERS OF COUNTY SOCIETIES

County	President	Secretary
Adair		
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Bryan		
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Lincoln		
Logan		
Love		
McClain		
McCurtain		
McIntosh		
Marshall	W. Lee Davis, Kingston	John A. Haynie, Aylesworth
Mayes		
Murray		
Muskogee	O. C. Klass, Muskogee	W. B. Newton, Muskogee
Noble		
Okmulgee		
Oklahoma		
Osage	K. L. Colley, Bigheart	Benj. H. Skinner, Pawhuska
Payne		
Pittsburg		
Pontotoc	W. D. Faust, Ada.	I. L. Cummings, Ada
Pottowatomie		
Pushmataha		
Roger Mills		
Rogers		
Seminole		
Sequoyah		
Stephens		
Texas		
Tillman	S. P. Rawls, Altus	Raymond H. Fox, Altus
Tulsa		
Wagoner		
Washington		
Washita		
Woods		
Woodward		

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—THE—

Sophian-Hall-Alexander

Laboratories

wish to announce to the medical profession that after several months of preparation it has its Biological preparations ready for distribution and use.

The personnel of this Laboratory comprises the names of Dr. A. Sophian, already well known for his work on Epidemic Meningitis; Mr. E. R. Alexander, for several years his co-worker as serum chemist in the New York Research Laboratory, in immediate charge of the Antitoxin department; and Dr. Frank J. Hall, who has been known here as a clinical pathologist for many years.

We wish the physicians of this western country to feel a personal pride in furthering the interests of this distinctly ethical institution, to the end that we develop here a Laboratory for the production of serums and allied products that will rank with its model, the New York Research Laboratory.

Our Diphtheria Antitoxin, Tetanus Antitoxin and Anti-meningitis Serum represent the last word in quality and appearance. The superiority of our syringes and containers is evidenced by their adoption, with our permission, for use by the City Health Boards of New York City and Philadelphia, the foremost Municipal Health Boards of America. The Oklahoma State Board of Health is also using our products exclusively for distribution in this great state.

Our full line of bacterins is most carefully prepared and sealed in ampoules without any addition of preservatives Such a method of preparation involves greater expense and skill but insures the perfect specificity and potency of action.

Meningo Vaccine as a preventive against the dreaded Meningitis is prepared in these Laboratories under the personal supervision of Dr. A. Sophian. This dreaded disease is much easier prevented than cured.

Special attention is directed to a faultless technique in the performance of the original Wassermann test. The fee for this test has been reduced to ten dollars. We are prepared to send syringe with full instructions for obtaining blood for the test.

Pasteur Treatment is furnished daily by mail, reaching Oklahoma Doctors in from twelve to twenty-four hours after leaving the laboratories; its freshness being a decided advantage.

Literature on any of our products will be mailed physicians on request.

A cordial invitation is extended the profession to visit the Laboratory at 1208 Wyandotte Street, Kansas City, Missouri.

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